

SECTION FIVE: TRANSPORTATION

With an estimated 80,000 annual visitors, the popularity of Spencer Gorge – Webster's Falls Conservation Area as a recreation and tourist destination has resulted in substantial traffic increases and parking demand. In 2011 visitation might have been as high as 96,000. The increased parking demand has resulted in the use of open field/lawn areas to accommodate overflow parking during peak periods and the occurrence of on-street parking along local roadways adjacent to the site. The increased traffic and parking activities contribute to site congestion, poor circulation, impeded emergency access and illegal parking activities, resulting in the creation of overall neighbourhood traffic management issues.

The primary objective of the Transportation Study is to identify traffic impacts associated with the movement of people to, within and out of the area, including neighbourhood and emergency service impacts, and the subsequent development of measures that will mitigate identified impacts and improve both quality of life for adjacent residents and the natural experience for visitors to the Conservation Area.

5.1 Existing Transportation System

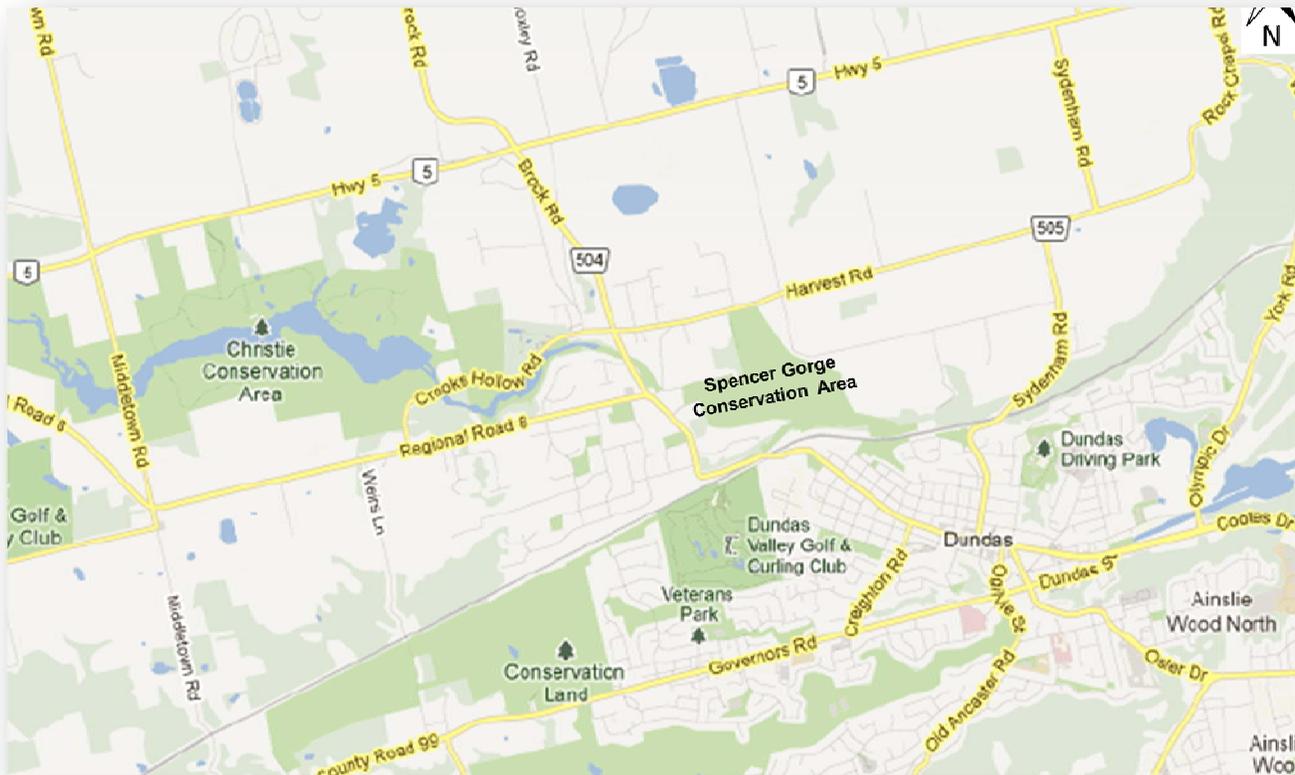
5.1.1 Road Network Characteristics

The network of municipal roads adjacent to the Spencer Gorge–Webster's Falls Conservation Area is illustrated in Figure 10. An inventory was completed through field investigations and supplemented by a review of relevant information provided by the Hamilton Conservation Authority and City of Hamilton. The general characteristics of the adjacent road network are summarized in Table 9.

Table 9: Roadway Characteristics

Road Name	Functional Classification	No. Of Lanes	Cross-Section	Speed Limit
Regional Road 8	Major Arterial	2	Rural	60 km/h
Brock Road	Major Arterial	2	Rural	60 km/h
Harvest Road	Arterial	2	Rural	50 km/h ⁵
Short Road	Local	2	Rural	50 km/h
Fallsview Road	Local	2	Rural	50 km/h
Webster's Falls Road	Private Laneway	1	Rural	N/A
Ofield Road South	Collector	2	Rural	60 km/h
Tew's Lane	Local	2	Rural	50 km/h

⁵ Posted maximum speed limit on Harvest Road is 50 km/h reducing to 40 km/h within vicinity of Greenville Elementary School.

Figure 10: Municipal Road Network

Within the study area, Regional Road 8 is a two-lane major arterial roadway that runs north-south and operates under the jurisdiction of the City of Hamilton. Within the area immediately adjacent to Webster's Falls Road, the gravel shoulder area is commonly utilized for on-street parking given its direct pedestrian access to the Conservation Area and absence of parking prohibitions.

Harvest Road is a two-lane arterial roadway that runs east-west through the study area and operates under the jurisdiction of the City of Hamilton. Access to both Webster's Falls and Tew's Falls is clearly signed and parking is prohibited on the north side of the roadway. However, parking restrictions are not signed on the south side of the roadway, thereby resulting in the occurrence of on-street parking during peak periods which contributes to congestion and visibility issues.

Vehicular access to Spencer Gorge - Webster's Falls Conservation Area is provided by way of Short Road/ Fallsview Road, a two-lane rural local roadway which operates under the jurisdiction of the City of Hamilton. The current cross section is approximately 7.0 metres wide (edge of pavement to edge of pavement) and there is a significant narrowing of the cross-section at the intersection of Short Road and Fallsview Road (right-angle intersection). Parking is prohibited along both sides for the entire length of roadway, however during peak periods vehicles have been observed to park on-street when parking at Webster's Falls is at capacity. The combination of a limited right-of-way, horizontal roadway constraints, substandard dead end roadway length and absence of a paved turn-around

area significantly impacts vehicular access to Webster's Falls and negatively impacts response times and manoeuvrability of emergency vehicles when accessing the site.

Webster's Falls Road is a private laneway located east of Regional Road 8 which provides pedestrian and emergency access to the Spencer Gorge – Webster's Falls Conservation Area. The laneway was deemed a "private" road in 1968, at which time public access to Spencer Gorge was restricted. To limit public access to the Conservation Area by way of Webster's Falls Road, the local residents erected an electronic gate which restricts vehicular access to the Conservation Area at all times. However, the gate does not restrict pedestrian or cyclist traffic and permits the use of the laneway by the Hamilton Conservation Authority for maintenance and security vehicles.

Emergency Medical Services (EMS) currently utilize Webster's Falls Road as the primary access to the Conservation Area in the event of an emergency, as this location is best suited from an accessibility perspective and can accommodate numerous emergency vehicles and associated equipment. Emergency vehicles can enter the gate by use of a "YELP" siren or by manually inputting the security code. However, the ongoing use of this private roadway for emergency vehicles has led to neighbourhood concern and complaints with respect to traffic volume and noise.

Ofield Road is a two-lane rural collector roadway with a posted speed limit of 60 km/h south of Harvest Road. Given its close proximity to Tew's Falls and the ability to access the Spencer Gorge – Webster's Falls Conservation Area by foot, Ofield Road has been identified as an informal access point to the Conservation Area.

a) Pedestrian and Cyclist Facilities

Within the study area, a concrete sidewalk is provided along the north side of Harvest Road from the intersection of Harvest Road and Brock Road to a point approximately 500 metres east of the intersection, terminating in front of Greensville Public School. Concrete sidewalk is also provided on the west side of Brock Road from the intersection of Harvest Road and Brock Road, continuing southerly to Regional Road 8. In its current condition, the existing sidewalk network does not provide for a continuous pedestrian link between Webster's Falls and Tew's Falls.

A review of the City of Hamilton Bike Route, Parks and Trails mapping (2011) indicates that within the study area, Regional Road 8 is designated as a cautionary un-signed bike route with additional indication that the section of route south of Harvest Road is high in volume and/or narrow in roadway width. Harvest Road is also designated as a cautionary un-signed bike route. The cycling map indicates that both routes provide direct access to walking and/or hiking trails within the Spencer Gorge – Webster's Falls Conservation Area.

b) Transit Facilities

The community of Greensville and surrounding areas are not currently serviced by municipal transit.

5.1.2 Site Access

Vehicular site access is provided at both Webster's Falls and Tew's Falls, facilitating movement into and out of each park and corresponding on-site parking facilities. Access to Webster's Falls is provided via Fallsview Road by way of a narrow, two-lane paved driveway which leads to the pay attendant / pay station located within the parking area. Field observations have noted that during

peak periods, the Webster's Falls driveway becomes congested, resulting in queuing along the driveway and spilling back onto Fallsview Road. Given the limited opportunity for vehicles to turn around when the parking area is at capacity, site circulation becomes impeded during peak periods resulting in congestion and queuing which in turn has the potential to negatively impact emergency access. The Hamilton Conservation Authority attempts to mitigate the congestion by providing a paid police officer at the intersection of Harvest Road and Short Road to manage traffic, as well as through temporary signage which indicates when the parking area is full. Unfortunately, neither of these mitigation measures has proven to be entirely successful in redirecting traffic to alternate parking facilities.

Access to Tew's Falls is provided via Harvest Road by way of a narrow, two-lane paved driveway located immediately west of Tew's Lane. The site driveway provides access to the gravel parking area located adjacent to Harvest Road, as well as access to the overflow and bus parking areas. During peak conditions it was noted that driveway operations deteriorate, primarily due to the high volume of vehicular traffic and relatively short driveway length, which results in queuing and spill back onto Harvest Road.

5.1.3 Existing Parking Conditions

a) Webster's Falls

Parking is currently provided by way of a formalized gravel parking lot which accommodates approximately 85 vehicles. Two informal grassed overflow parking areas are commonly utilized during weekend periods to accommodate parking demand under peak conditions. The first overflow area is located west of the driveway which accommodates approximately 40 vehicles, and the second overflow area is located south of the gravel parking lot and can accommodate approximately 150 vehicles. Combined, the estimated parking supply at Webster's Falls can accommodate approximately 275 vehicles. However, it is recognized that the use of grassed areas for overflow parking has been opposed by some area residents who have expressed a continued desire to protect the natural character of the lands. As such, this study will examine alternatives to the use of overflow areas and recommend a preferred strategy to accommodate parking demand.

b) Tew's Falls

Parking at Tew's Falls is currently provided by way of a formalized gravel parking lot located adjacent to Harvest Road. The parking lot accommodates approximately 26 vehicles. An informal grassed overflow parking area is utilized during weekend periods to accommodate additional parking demand, as well as bus parking, and can accommodate approximately 200 vehicles. Combined, the estimated parking supply at Tew's Falls can accommodate approximately 226 vehicles.

c) Greenville Optimist Community Park

Greenville Optimist Community Park includes provision of a small gravel parking lot that is accessed by way of Brock Road. There is no charge to park at this facility. The parking lot accommodates an approximate yield of 25 vehicles and provides access to Spencer Gorge – Webster's Falls by way of a pedestrian pathway into the Conservation Area.

d) Greenville Public School

The staff parking lot at Greenville Public School is frequently utilized during peak periods when the parking facilities at Webster's Falls are at capacity. In its current configuration the paved lot provides a parking yield of approximately 32 stalls. This parking area is owned and operated by the Hamilton-Wentworth District School Board and is not formally part of the overall parking supply for the Spencer Gorge – Webster's Falls Conservation Area.

5.1.4 Emergency Service Access

Through discussions with Emergency Medical Services (EMS) it has been determined that approximately 6 – 8 incidents occur within the Spencer Gorge each year (inclusive of approximately 5 rope rescues per year). Webster's Falls Road is currently the preferred access point as it provides emergency teams with a direct route to Webster's Falls. Emergency calls pertaining to incidents at either Tew's Falls or Dundas Peak are immediately directed to the Tew's Falls parking lot through dispatch.

Given the ongoing traffic congestion and illegal on-street parking along Short Road and Fallsview Road, combined with the limited accessibility to the parking lot at Webster's Falls and long haul distance for first responders to carry equipment, EMS representatives have confirmed that Webster's Falls Road will remain the preferred access in the case of an emergency at Webster's Falls.

However, it was noted that any improvement that could potentially alleviate congestion along Short Road and Fallsview Road, and any improvements that would improve circulation of the gravel parking lot at Webster's Falls, would benefit emergency services and positively impact their ability to respond to calls in a timely manner should they require access to Webster's Falls by way of Short Road / Fallsview Road.

5.2 Analysis

5.2.1 Traffic Analysis

Operation of the unsignalized intersections of Harvest Road at Brock Road; and Harvest Road at Short Road, were evaluated based on methodology and procedures described in the Highway Capacity Manual (HCM) and were performed using Synchro version 7.

Capacity analysis of unsignalized intersections focuses on quantifying the efficiency of traffic flow and is based on the delay experienced by individual vehicles executing a particular movement. Capacity and delay are both functions of gap availability in opposing traffic flows and driver acceptance of those gaps.

The highest possible unsignalized rating is Level of Service (LOS) A, under which the average total delay is equal or less than 10 seconds per vehicle. When the average delay exceeds 50 seconds the movement is classified as LOS F and indicates that remedial measures are to be considered, where feasible. The resulting intersection analysis considered two separate measures of performance:

- Volume to capacity (v/c) ratio for each movement; and

- The LOS for each movement (based on average control delay per vehicle).

Table 10 summarizes the performance measures for each intersection under existing operational conditions and detailed Synchro 7.0 outputs are contained in **Appendix F**.

Table 10: Existing Traffic Operations

Intersection	Traffic Control	Approach / Movement	Analysis Period					
			Easter Weekend			Victoria Day Weekend		
			Measure of Effectiveness			Measure of Effectiveness		
V/C Ratio	Delay (s)	LOS	V/C Ratio	Delay (s)	LOS			
Brook Road at Harvest Road	All Way Stop Control	EB Left / Through / Right	0.11	8.6	A	0.11	9.2	A
		WB Left / Through / Right	0.23	9.6	A	0.34	11.1	B
		NB Left / Through / Right	0.34	9.8	A	0.46	11.8	B
		SB Left / Through / Right	0.22	9.3	A	0.34	11	B
		Intersection Summary		9.5	A		11.2	B
Brook Road at Short Road	Minor Road Stop Controlled (South Leg)	EB Through/Left	0.1	0	A	0.15	0	A
		WB Through/Right	0.02	1.5	A	0.03	1.5	A
		NB Shared Left/Right	0.11	10.5	B	0.17	12.5	B
		Approach Summary		10.5	B		12.5	B

The study area intersections were found to be operating with acceptable levels of service on all approaches under peak weekend / holiday traffic conditions. There is no indication that geometric improvements or changes to traffic control are required.

5.2.2 Driveway Operations

a) Webster’s Falls Parking Area

The Webster’s Falls site driveway was observed to be operating under congested conditions during peak periods. Given the limited circulation within the gravel parking lot, vehicles were observed to be queued along the driveway and out onto Fallsview Road during peak periods. Upon discovering that the gravel parking lot and grassed overflow areas were full, vehicles were observed to be making numerous-point turns within the driveway, private driveways, and the terminus of Fallsview Road in order to turn around and exit the site. It was noted that although the “lot full” signs were erected at the intersection of Harvest Road and Short Road, the police officer continued to allow vehicles to access Short Road, thereby adding to the congestion experienced at the driveway. A number of vehicles were also observed to be stopping along Fallsview Road at the pedestrian entry gate, unloading passengers and equipment (coolers, sporting gear, BARBEQUE’s, etc.) then proceeding to park on-street (notably Forest Avenue and the Greensville Elementary School parking lot). In essence, the pedestrian gate was operating as a short term pick-up/drop-off area (approximately 5 vehicles were observed to be “picking-up” at the 5:00 p.m. period with a queue of vehicles waiting to stop at this location). It is important to highlight that this is a potential source of lost revenue for the HCA given the fact that entry fees are not collected at this location, nor is its use monitored.

b) Tew’s Falls Parking Area

Field observations during peak hour site operations revealed that the Tew’s Falls site driveway experiences significant operational and safety concerns related to vehicle queuing, driveway

congestion and restricted manoeuvrability on-site. The current driveway arrangement is limited to one combined inbound/outbound lane and is unable to accommodate high demands on entering vehicles. HCA staff were observed to be staggering entry and collecting fees at two locations in attempts to expedite the processing of inbound vehicles, however this did little to mitigate the occurrence of queuing along Harvest Road during periods of high demand.

In particular, eastbound queues along Harvest Road were observed to be 5 to 6 car lengths during peak periods, resulting in potential safety concerns given the vertical alignment of Harvest Road and speed of oncoming eastbound vehicles. The presence of queued vehicles at the Tew's Falls driveway, combined with the vertical alignment of Harvest Road, results in potential for increased likelihood of rear-end collisions at this location. Furthermore, the occurrence of on-street parking along Tew's Lane resulted in significant pedestrian movements across Harvest Road in order to access Tew's Falls by foot – further contributing to the safety issues experienced as a result of driveway operations and queuing.

In their current condition, the site driveways at both Webster's Falls and Tew's Falls are unable to satisfactorily accommodate peak vehicle demands during weekend operations. The deterioration of operations at each of these driveways leads to increased operational and safety concerns on adjacent roadways and increased pressure on neighbouring residential properties as the impacts are felt well beyond the immediate site. Opportunity exists to improve driveway design to better accommodate the increased demands and minimize impacts to the adjacent roadway system.

c) Greenville Optimist Community Park Parking Area

Although the Greenville Optimist Community Park gravel parking lot is intended to operate in a one-way loop fashion, the absence of signage at the site driveways leads to driver confusion. A number of drivers were observed to be violating the one-way operation during the peak period which resulted in driveway congestion, delays and impeded site access. Furthermore, a number of vehicles were found to be parked along both sides of the inbound and outbound driveways, further contributing to the operational difficulties and restricted movement within the parking lot. Signage improvements (i.e. provision of standard one-way signs which clearly indicate the direction of travel at each site driveway), and potential implementation of no parking signage along the inbound and outbound driveways, would significantly improve circulation and overall driveway operations at this location.

5.2.3 Parking Utilization

a) Survey Approach

A parking utilization survey of specified lot facilities and on-street parking areas within the Spencer Gorge – Webster's Falls Conservation Area was undertaken in order to confirm the current level of parking accumulation, duration and utilization during peak weekend / holiday conditions.

Parking surveys were completed on Friday April 6, 2012 of the Easter Weekend and Sunday May 20, 2012 of the Victoria Day Weekend which represented "long weekend" peak conditions. Given the significantly lower visitation over Easter weekend, the results of the Victoria Day weekend survey have been used for analysis purposes. Survey data is provided in **Appendix B** for further reference.

The surveys were conducted from 11:00 a.m. to 5:00 p.m. and consisted of turning movement counts at each parking lot driveway, a license plate trace of inbound and outbound vehicular movements at

both the Webster's Falls and Tew's Falls parking lots, and a roving patrol of on-street parking areas every 15 minutes during the 6-hour survey period. The collected data was entered into Microsoft Excel to determine the following parking utilization statistics:

- Average and maximum parking accumulation (average and maximum number of vehicles parked in each parking lot);
- Maximum parking occupancy (maximum number of parked vehicles to parking capacity, expressed as a percent); and
- Average duration (average length of time vehicles were parked in designated parking lots).

b) Study Area

The study area consists of the immediate vicinity of the Spencer Gorge – Webster's Falls Conservation Area and consists of a number of formal and informal parking lots which offer free and paid parking, as well as a number of on-street areas. The following summarizes the on-street and off-street parking locations that were surveyed:

Parking Lots Surveyed:

- Webster's Falls parking lot;
- Tew's Falls parking lot;
- Greensville Optimist Park parking lot;
- Greensville Elementary School parking lot.

On-Street Parking Sites Surveyed:

- Harvest Road, north and south sides from Brock Road to Ofield Road;
- Short Road, east and west sides from Harvest Road to Fallsview Road;
- Fallsview Road, north and south sides from Short Road to Webster's Falls driveway;
- Forest Avenue, north and south sides from Harvest Road to Meldrum Avenue;
- Webster's Falls Road, north and south sides (at the gate);
- Tew's Lane, east and west sides from Harvest Road to its northerly limits;
- Medwin Drive, north and south sides from Tew's Lane to its westerly limits; and
- Ofield Road South, east and west sides from Harvest Road to Fallsview Road East.

c) Study Results

Off-street parking demand is summarized in Table 11 and illustrates parking accumulation during peak conditions (3:30 p.m. on Sunday May 20, 2012).

Table 11: Off-Street Parking Demand

Facility	Type	Parking Supply	Peak Accumulation
Webster's Falls Parking Lot	Gravel Lot	85	85
	Overflow	190	190
Tew's Falls Parking Lot	Gravel Lot	26	26
	Overflow	200	200
Greensville Optimist Park	Gravel Lot	25	48
Greensville Elementary School	Asphalt Lot	32	50
Resulting Off-Street Parking Supply and Demand		558	599

License plate data was recorded as vehicles entered and exited each of the Webster's Falls and Tew's Falls parking lots. Data obtained through the license plate trace study has been used to estimate the duration of stay for each vehicle entering the site. As illustrated in Figure 11, approximately 80 percent of recorded vehicles at Webster's Falls stayed for a duration of 3.5 hours, while approximately 80 percent of recorded vehicles at Tew's Falls stayed for a duration of 2.75 hours.

Figure 11: On-Site Parking Duration (Length of Stay)



On-street parking demand is summarized in Table 12 and illustrates the maximum parking accumulation (maximum demand throughout the survey period) as well as the peak parking accumulation (which was confirmed to be at 3:30 p.m.).

Table 12: On-Street Parking Demand

Block Face	From	To	Maximum Accumulation	Peak Accumulation
Harvest Road	Brock Road	Ofield Road	6	2
Short Road	Harvest Road	Fallsview Road	0	0
Fallsview Road	Short Road	East Limits	4	0
Forest Avenue	Harvest Road	Meldrum Avenue	42	42
Webster's Falls Road	Area in front of gate		2	0
Tew's Lane and Medwin Drive	Harvest Road	Limits	58	58
Ofield Road	Harvest Road	Fallsview Road East	4	4
Resulting On-Street Peak Parking Demand				107

d) Parking Demand – Supply Relationship

Once summarized, the data collected from the May 20, 2012 parking survey confirmed a peak parking demand of approximately 706 spaces with an available off-street supply of only 558 spaces (this includes the use of naturalized overflow areas in both the Webster's Falls and Tew's Falls areas), resulting in a maximum demand of approximately 1.26 times the available off-street parking supply.

In terms of "formalized" parking supply within the Spencer Gorge – Webster's Falls Conservation Area, non inclusive of overflow areas or use of other area parking lots not under the ownership of the Hamilton Conservation Authority, the available off-street parking supply is approximately 111 spaces (85 spaces at Webster's Falls and 26 spaces at Tew's Falls), resulting in a maximum peak parking demand of approximately 6.36 times the available parking supply within formalized HCA parking lots. Table 13 below summarizes these statistics.

Table 13: Parking Demand/Supply

Parking Demand	Total Off-Street Parking Supply	"Formal" Parking Supply
706	558	111
Difference (+/-)	-148	-595

5.3 Parking Management Strategies

5.3.1 Identified Constraints

The key constraints identified through field observations and parking surveys are described as follows:

- Available parking supply does not adequately accommodate peak parking demand which results in congestion, queuing and poor site circulation;
- Inadequate parking supply results in an increase of on-street parking during peak periods which has, on occasion, lead to illegal parking activities, blocking of private driveways, increased on-street congestion and increased pedestrian volumes;
- Availability of alternate parking facilities (i.e. Tew's Falls) is not clearly signed when Webster's Falls parking lot is full, nor are directions to Tew's Falls easily understood;
- Design of existing parking facilities results in restricted circulatory flow on-site. The current location of attendant booths / pay stations contributes to queuing and a deterioration of driveway and site operations. Specifically, operation of the driveway at Tew's Falls during peak periods results in stopped vehicles queued along Harvest Road and increased potential for rear-end collisions; and
- The ability to accommodate large size groups for picnics encourages longer-duration stays and limits vehicle turn over within the parking lots.

It is recognized that there is no "quick fix" which will immediately solve the current parking supply and demand issues. However, opportunity exists to develop alternative solutions based on fundamental tourist transportation management and parking demand management principles which will result in improved parking efficiency both on-site and within the immediate area, promote alternate modes of transportation and satisfy local residents by reducing traffic volumes, reducing parking demand and minimizing/eliminating the use of naturalized areas for overflow parking use. It is believed that a truly

effective solution to the problem will serve both the HCA and local community while continuing to highlight this unique destination and accommodate out-of-town visitors.

5.3.2 Tourist Transportation Management

Given the current level of visitation (an estimated 80,000 visitors per year), the popularity of Spencer Gorge – Webster's Falls Conservation Area has rapidly become a prime recreation and tourist destination. Ongoing promotion of the City of Hamilton as being the "Waterfall Capital of the World" (source: www.cityofwaterfalls.ca) has led to a continued growth in tourism and interest in the recreational facilities maintained by the Hamilton Conservation Authority.

Given the tourist and recreational nature of the site, it is prudent to consider tourist transportation management strategies which will aim to improve transportation options for recreational travel while reducing automobile traffic within environmentally and socially sensitive areas.

Tourist travel has predictable patterns and parking needs and often occurs in areas that have unique environmental features that are particularly sensitive to degradation by excessive automobile traffic and parking demands. Tourist Transportation Management (TTM) includes the examination of a wide range of strategies that improve available transportation options, integrates alternate modes of travel and promotes active transportation.

Table 14 summarizes a wide range of TTM initiatives that were considered in the development of alternative parking solutions:

Table 14: Tourist Transportation Management Strategies

Strategy	Description	Potential Benefit
Shuttle Services	<ul style="list-style-type: none"> Provision of a shuttle service from a remote parking area to the Conservation Area during peak periods. Shuttle service could be granted priority access to the Conservation Area as an incentive for patrons to park off-site. 	<ul style="list-style-type: none"> Addresses overflow parking issues by providing remote parking; Reduces automobile traffic to and from the site; Reduces on-site parking demand.
Pedestrian and Cyclist Improvements	<ul style="list-style-type: none"> Improvement of current pedestrian and cycling infrastructure and possible provision of enhanced crosswalks, multi-use paths and provision of on-road bike lanes in attempts to increase road and pedestrian connectivity and encourage alternate modes of travel. 	<ul style="list-style-type: none"> Improved facilities enhances connectivity to and from the Conservation Area; Reduces automobile traffic and promotes the use of alternate modes.
Bicycle Parking	<ul style="list-style-type: none"> Provision of convenient, secure, and readily accessible bicycle parking at key locations. 	<ul style="list-style-type: none"> Promotes the use of alternate modes of travel; Potentially reduces automobile traffic and subsequent on-site parking demand.
Parking Management	<ul style="list-style-type: none"> Implementation of strategies that encourage efficient use of existing parking facilities. Strategies may include provision of remote parking, improving walkability to the site, increasing existing parking capacity, installing a time-limited parking system, and development of an overflow parking plan. 	<ul style="list-style-type: none"> Maximizes existing parking; Has potential to significantly reduce on-site parking demand; Potential to reduce auto trips to the site.

Strategy	Description	Potential Benefit
Restrict Parking	<ul style="list-style-type: none"> Implementation of parking restrictions along key streets to prohibit on-street parking, thereby eliminating undesirable effects of peak on-street parking. 	<ul style="list-style-type: none"> Restriction of on-street parking alleviates neighbourhood parking concerns and allocates more road right-of-way for pedestrian and cyclist facilities, however the restriction would apply to local residential traffic, thereby restricting residents from parking on-street.
Access and Wayfinding	<ul style="list-style-type: none"> Use of signs, maps, guidebooks, websites and a number of other forms of media that provides information on travel options including the presence of nearby pedestrian and cyclist facilities, availability of remote parking areas, availability of on-site parking, associated fees, etc. 	<ul style="list-style-type: none"> Has potential to promote alternate modes of travel and encourage use of remote parking areas which may result in a reduced auto demand and a reduction of on-site parking demand.

The resulting goal of Tourist Transportation Management is to encourage continued visitation to the Spencer Gorge – Webster's Falls Conservation Area while minimizing use of a private automobile and traffic to and from the site by providing detailed information regarding travel choices available and how they can be used.

5.3.3 Parking Demand Management

Parking Demand Management (PDM) refers to the implementation of various strategies that result in more efficient use of parking resources. When appropriately applied, parking management can significantly reduce the number of parking spaces required in a particular location and provide a variety of economic, social and environmental benefits. When all impacts are considered, improved management is often the best solution to parking problems.

The implementation of cost-effective parking demand management can result in a number of benefits including facility cost savings, revenue generation, reduction of land requirements and preservation of green-space, support of alternate modes of transportation and ultimately result in more livable communities.

Recognizing that providing too much parking supply can be as harmful as too little, a number of parking management strategies (as described in Table 15) will be considered in the development of alternative parking solutions for the Spencer Gorge – Webster's Falls Conservation Area.

Table 15: Parking Demand Management Strategies

Strategy	Description	Potential Benefit
Optimize Existing Facilities	<ul style="list-style-type: none"> Optimize existing layout and utilize currently wasted areas. 	<ul style="list-style-type: none"> May achieve slight increase in available parking supply at low cost with little impact to adjacent lands.
Remote Parking	<ul style="list-style-type: none"> Use of an off-site parking facility to accommodate longer duration trips and/or overflow parking during peak weekend conditions and special events. Shuttle buses may be used to connect destinations with remote 	<ul style="list-style-type: none"> Accommodates overflow parking, reduces on-site parking demand, and results in less automobile traffic visiting the site; Results in little to no additional impact to the site;

Strategy	Description	Potential Benefit
	parking facilities, allowing them to be farther apart than what would otherwise be acceptable. Remote parking requires the provision of adequate use information and incentives to encourage motorists to use a more distant facility.	<ul style="list-style-type: none"> Results in improved quality of life for local residents as vehicle trips are minimized.
Time Limited Parking	<ul style="list-style-type: none"> Limit on-site parking duration by use of time-limited parking regulations (i.e. maximum of 2 hour parking) and/or time of day rates (higher rates during weekends and special events). 	<ul style="list-style-type: none"> Encourages shorter stay visits and promotes site turn-over; Longer duration stays can be accommodated at a remote location.
Overflow Parking Plan	<ul style="list-style-type: none"> Development of an overflow parking plan which will be applied during peak periods and special events ensuring that overall parking demand can be accommodate without providing additional permanent parking supply. 	<ul style="list-style-type: none"> Continues to address temporary overflow parking without providing permanent facilities.
Mitigating Spillover	<ul style="list-style-type: none"> Addressing “spillover” parking problems by providing information indicating where motorists may and may not park, use of parking regulations to control impacts (i.e. no parking/stopping during certain periods), and establishing a monitoring program. 	<ul style="list-style-type: none"> Mitigates effects of on-street parking and provides local residents with opportunities to report problems.

On their own, most parking demand management strategies have modest impact, typically reducing parking requirements by 5 to 15%, but impacts are cumulative and synergistic when combined, resulting a in cost-effective comprehensive parking management program that achieves a reduction in parking demand while providing additional social and environmental benefits.

5.3.4 Development of Improvement Alternatives

Based on the constraints described in Section 4.1, a number of short-term and long-term improvements have been developed which address, to varying degrees, the need to reduce on-site parking demand while improving upon the current transportation and parking conditions during peak periods. These include:

a) Short-Term Improvements

Immediate implementation of minor, site-specific operational improvements at both Webster’s Falls and Tew’s Falls which will improve traffic and parking operations and enhance site circulation. Proposed improvements are summarized in Table 16.

Table 16: Short-Term Improvements

Proposed Improvement	Webster’s Falls	Tew’s Falls
Wayfinding	<ul style="list-style-type: none"> Improved conspicuity of “Lot Full” signage by providing larger signs with standard font and text sizes, consistent with the guidance provided in the Ontario Traffic Manual (OTM) Book 2 – Sign Design, Fabrication and Standards; 	<ul style="list-style-type: none"> Provide advance, directional signage to Tew’s Falls (consistent with guidance contained in the OTM Book 8 – Guide and Information Signing) which will clearly indicate presence of alternate parking facility when the Webster’s Falls parking lot is at

Proposed Improvement	Webster's Falls	Tew's Falls
	<ul style="list-style-type: none"> Improved wayfinding signage to direct visitors to alternate parking areas (Tew's Falls or Christie Conservation Area); Use of Variable Message Signs to indicate when parking lots are full and what alternatives exist. 	<ul style="list-style-type: none"> capacity; Improve conspicuity of "Lot Full" signage by providing larger sized signs with standard font and text sizes (as per standards contained in the OTM Book 2).
Enforcement	<ul style="list-style-type: none"> Hamilton Police to continue to prohibit vehicular access to Short Road when Webster's Falls parking lot is full. Local residents may be granted access, but visitor traffic is to be restricted when the lot is at capacity. Hamilton Police enforce parking by-laws in the area. 	<ul style="list-style-type: none"> Continued enforcement of no parking areas along Harvest Road.
Accessibility and Circulation	<ul style="list-style-type: none"> Re-designed driveway that provides for improved access and egress as well as a turn-around area for inbound vehicles wishing to exit the lot before approaching the pay station; Optimized parking layout within the existing gravel lot; Improve accessibility by paving areas adjacent to the pay-and-display fare machine and accessible parking stalls. 	<ul style="list-style-type: none"> Re-designed driveway that provides multiple entrance lanes and additional exit lane east of the parking area in order to better facilitate movement of emergency vehicles and buses; Improve site operation by relocating pay stations to provide more stacking area, mitigating queuing impacts along Harvest Road;
Parking Cost and Payment	<ul style="list-style-type: none"> Increase parking rate during peak periods; Provide alternate payment methods (i.e. debit and credit). 	<ul style="list-style-type: none"> Increase parking rate during peak periods; Provide alternate payment methods (i.e. use of debit and credit).
Other	<ul style="list-style-type: none"> Provide attendant at the walk-in gate adjacent Fallsview Road to monitor drop-off/pick-up activity and unpaid entry; Provision of bicycling parking facilities. 	<ul style="list-style-type: none"> Provision of bicycling parking facilities.

b) Long-Term Improvements

The development of a long-term parking management strategy was heavily influenced by the need to accommodate a large volume of vehicles, primarily during weekend and holiday periods between the months of April and October. After reviewing a variety of parking management strategies it was determined that the development of a remote parking area with provision of a shuttle service would best address the peak parking demand, mitigate identified traffic operations and safety concerns, as well as satisfy the desire to preserve naturalized areas and minimize environmental impacts associated with the use of green-space to accommodate overflow parking demand.

In response to public comment and concern, Table 17 summarizes the anticipated benefit achieved by implementation of a remote parking area and associated shuttle service.

Table 17: Public Comment and Response

Comment / Concern	Mitigation
1) Increased traffic volumes along Harvest Road, Short Road and Fallsview Road during weekends due to increased use of the park.	<ul style="list-style-type: none"> Although park demand will remain high, the closure of on-site parking areas and provision of a shuttle service during weekend and holiday periods will accommodate the increased visitor demand while alleviating the traffic impacts experienced to-date.
2) Concern that emergency response teams will be unable to access Webster's Falls due to congestion along Fallsview Road and within the parking lot.	<ul style="list-style-type: none"> During weekend periods the on-site parking areas will be closed. Both Webster's Falls and Tew's Falls will be inaccessible by personal auto as travel to the site will rely on the use of a shuttle service. Emergency Services will have unimpeded access to Webster's Falls and full use of the gravel parking lot should an emergency in that area arise.
3) Illegal parking occurring on private property and within no-parking areas during peak periods due to lack of on-site parking. Results in an inconvenience to local residents and impacts quality of life.	<ul style="list-style-type: none"> The use of remote parking areas and the proposed shuttle service will eliminate the occurrence of illegal parking as the site will be inaccessible by personal auto. However, signage and enforcement efforts will continue throughout the transition period in order to ensure that visitors are aware of, and utilize, the remote parking area. Continued police enforcement during peak periods will ensure that non-local traffic is limited, thereby improving quality of life to local residents and mitigating traffic impacts.
4) Overall traffic congestion and delay experienced by local residents due to increased park traffic.	<ul style="list-style-type: none"> Traffic congestion and delay will be minimized during peak periods given the closure of on-site parking and shift to accommodating the parking demand at a remote location.
5) Improved enforcement required to limit vehicles from accessing Short Road and Fallsview Road when the Webster's Falls parking lot is at capacity.	<ul style="list-style-type: none"> It has been recommended that the police officer stationed at the intersection of Harvest Road and Short Road be directed to prohibit non-local traffic from utilizing Short Road when the parking areas are at capacity, thereby minimizing impact to local residents.
6) Concern for pedestrian and cyclist safety given the increased traffic volumes during peak periods.	<ul style="list-style-type: none"> The use of a shuttle service will decrease traffic volumes during peak periods as well as decrease the need for on-street parking, thereby reducing pedestrian traffic to and from the site.
7) Inadequate signage indicating when parking lots are full. Improved enforcement needed to limit access to Short Road.	<ul style="list-style-type: none"> The need for improved signage has been noted and it is recommended that the use of variable message signs be used to indicate that remote parking is available. Continued police presence is recommended through the transition period in which visitors become familiar with the remote parking areas and shuttle service.
8) General feeling that too much green-space is being utilized for parking. Would prefer that it be used for recreational / passive uses.	<ul style="list-style-type: none"> The recommended remote parking area / shuttle service to Webster's Falls and Tew's Falls will eliminate the current practice of using green-space as overflow parking areas, providing the opportunity to reclaim these lands for recreational / passive uses.
9) Concern that parking and traffic congestion are negatively impacting emergency response efforts and restricting access to the area.	<ul style="list-style-type: none"> It has been confirmed that EMS is in support of the recommended shuttle service and restriction of personal vehicle use during peak periods. EMS realizes the benefit of reducing traffic volumes and has confirmed that the availability of the Webster's Falls gravel parking lot would positively impact response efforts should an emergency arise

Comment / Concern	Mitigation
	which requires access from this area.
10) Limited opportunities to accommodate parking demand during weekends and holidays.	<ul style="list-style-type: none"> The limited opportunity to accommodate peak parking demand is well documented. The recommended implementation of a remote parking area and shuttle service to/from Webster's Falls and Tew's Falls serves to address the parking concerns by accommodating vehicles off-site at a remote location while providing a shuttle service to the site, thereby mitigating the parking and traffic issues currently experienced by local residents and visitors to the area.

It is recognized that a long-term, sustainable solution has to meet the needs of both the Hamilton Conservation Authority and those of area residents who are directly impacted by the operation of the Spencer Gorge – Webster's Falls Conservation Area.

The preferred long-term recommendation of developing a remote parking area and providing a shuttle service to Webster's Falls and Tew's Falls during peak weekend periods, from April to October, provides a balanced approach in meeting the needs of all concerned. The proposed recommendation continues to provide access to this distinct and unique tourist destination while minimizing the traffic and parking impacts experienced during peak weekend conditions which negatively impact area residents. The proposed remote parking area and shuttle service achieves the goal of eliminating the use of green-space for overflow parking and contributes to minimized environmental impacts on the whole. The recommended improvement strategy is further discussed in **Section 5.4**.

5.4 Transportation/Parking Recommendations

5.4.1 Recommended Traffic/Parking Improvement Strategy

The recommended improvement strategy consists of a two-pronged approach in which the implementation of minor, site specific improvements are recommended in the short-term to mitigate existing traffic and parking issues. The short-term recommendations consist of minor geometrical improvements to each of the Webster's Falls and Tew's Falls site driveways including redesigned entry lanes, provision of turn-around areas and relocated pay stations in attempts to improve access / egress to the site, circulation and overall site operations.

General improvements also include improved wayfinding signage, implementation of parking prohibitions along Regional Road 8 (adjacent to Webster's Falls Road) and along the south side of Harvest Road (from Short Road to Ofield Road), continued enforcement, increased parking rates during peak periods and provision of alternate payment methods. These short-term improvements are also required as part of the successful implementation of the long-term improvement strategy and will contribute to the safe and efficient operation of the proposed shuttle service.

However, the implementation of short-term improvements will achieve little benefit in providing additional parking supply and as such, these improvements are unable to accommodate peak parking demands.

The recommended long-term improvement strategy consists of the development of a remote parking area which will have the parking supply available to accommodate peak parking demands, and includes the provision of a shuttle service that will transport visitors from the remote parking area to Webster's Falls and Tew's Falls. The proposed shuttle service would be available during peak periods (i.e. Saturday, Sunday and holiday service from April to October) at which time on-site parking would be prohibited during weekends at both Webster's Falls and Tew's Falls, effectively eliminating vehicular access to the site. The recommended long-term improvement strategy effectively resolves the existing traffic and parking issues experienced during peak periods of demand.

5.4.2 Shuttle Service Implementation Plan

The following summarizes the key components to the proposed remote parking / shuttle service and provides guidance with respect to the implementation of the shuttle service.

a) Location of Remote Parking Area

- Through conversations with the Hamilton Conservation Authority it has been confirmed that Christie Lake Conservation Area is the preferred location for a remote parking area. Christie Lake is easily accessible via Highway 5, is located within a 5 kilometer radius of the Spencer Gorge – Webster's Falls Conservation Area, and has sufficient capacity to accommodate the anticipated peak weekend parking demands. Potential exists for the Hamilton Conservation Authority to develop a Visitors Centre at Christie Lake which could serve as a transit hub for the shuttle service.

b) Wayfinding

- In order to successfully redirect traffic to Christie Lake, it is recommended that variable message signs be used along key corridors in order to provide direction as to how the remote parking area is accessed as well as highlighting the availability of a shuttle service to the Spencer Gorge – Webster's Falls Conservation Area. Key locations for the placement of variable message signs would include Highway 5 (east of Brock Road) and Regional Road 8 (south of Harvest Road) in order to capture westbound and northbound traffic destined for the site. Signage requirements are to be reviewed with regulatory agencies (MTO and City of Hamilton) prior to installation and use of variable message signs.
- Variable Message Signs (also referred to as changeable message signs or electronic message signs) are devices installed along the roadside to display messages of special events. They are often used to provide information regarding alternative routes, need to limit travel speed, warn of special conditions or inform the motorist of general traffic conditions and are commonly used in conjunction with parking guidance and wayfinding systems to guide motorists to available parking facilities. Portable or trailer-mounted variable message signs are commonly utilized for special events and would be appropriate for use by the HCA.

c) Shuttle Service to Spencer Gorge

- The shuttle service is proposed to operate during peak periods, presumably weekends and holiday, commencing in April (Easter Weekend) and running until October (Thanksgiving Weekend).

- It is anticipated that the shuttle service would be operational between the hours of 9:00 a.m. to 6:00 p.m. at which time vehicular access to Webster's Falls and Tew's Falls will be prohibited. Peak parking demand will be accommodated at Christie Lake in order to minimize traffic and parking impacts throughout the peak weekend periods. During the off-peak (hours prior to 9:00 a.m. and from 6:00 p.m. to dusk), parking will be permitted on-site within the gravel parking lots.
- Continued police enforcement is recommended during the transition period in which only local traffic and shuttle buses would be permitted access to Short Road and Fallsview Road. All non-local traffic would be redirected to Christie Lake. The Hamilton Conservation Authority will have to work in conjunction with the City of Hamilton to develop and implement a resident permit parking system which restricts on-street parking activities during weekends and holidays, as well as obtain a commitment for by-law enforcement of the signed parking restrictions.

d) Proposed Route

- The proposed shuttle route would originate at Christie Lake and operate on a fixed schedule with stops at designated platform areas at both Webster's Falls and Tew's Falls, providing a one-way direct route back to Christie Lake from Tew's Falls.
- The proposed route is approximately 13 kilometres in length and has an estimated travel time of approximately 30 minutes round trip.

e) Shuttle Vehicle

- Given the varied demographics of visitors to the site, it is recommended that the shuttle vehicle be accessible and have the ability to accommodate both personal mobility devices as well as bicycles.
- The standard 12.2 metre low-floor bus is an accessible, "kneeling" vehicle that seats up to 35 people, with a maximum capacity of 45 people (seated plus standing), can accommodate up to two personal mobility devices, and is equipped with bicycle racks. Entry to the passenger cabin is achieved without requiring the use of stairs and the vehicle is accessed at curb height, making it an ideal vehicle for shuttle services.

f) Service Contract

- Prior to committing to the purchase of fleet vehicles, it is recommended that the Hamilton Conservation Authority examine the potential to contract charter services from a local transit provider (i.e. Hamilton Street Railway, Coach Canada, First Student Canada, etc.).
- A review of charter services available from the Hamilton Street Railway (HSR) has confirmed a standard rate of \$94/hour (2012 charter rate). Services provided by the HSR include use of the low-floor accessible fleet vehicles and includes scheduling, route planning and provision of time tables.
- Route plans, schedules and vehicle requirements are to be determined and finalized as part of the service contract with a selected provider.

g) Costing

The following parameters were used in the determination of a rough order of magnitude cost estimate for the proposed shuttle service:

- Shuttle operation during weekends and holidays from April (Easter Weekend) to October (Thanksgiving Weekend) resulting in an estimated 66 shuttle days for the 2013 calendar year;
- Spring Season (March 31st to May 12th, 2013) – shuttle service operating from 10:00 a.m. to 5:00 p.m.;
- Summer Season (May 18th to September 2nd, 2013) – shuttle service operating from 9:00 a.m. to 6:00 p.m.;
- Fall Season (September 7th to October 27th, 2013) – shuttle service operating from 10:00 a.m. to 5:00 p.m.;

As illustrated in Table 18, the estimated daily shuttle cost (based on nine hours of operation) is approximately \$850 to run a single shuttle. Given the current level of visitation (in the order of 80,000 annual visitors), it is anticipated that two shuttle buses would be required to adequately accommodate the peak weekend and holiday demands at Spencer Gorge – Webster's Falls Conservation Area, resulting in a daily shuttle operating costs of approximately \$1,700. The ultimate operating cost may vary if it is determined that only one shuttle is required in the Spring and/or Fall seasons given the lower rate of visitation.

Table 18: Shuttle Service Cost Estimates

SEASON	TOTAL SHUTTLE DAYS	HOURS OF OPERATION	COST PER HOUR	APPROXIMATE COST	
				1 BUS	2 BUSES
Spring	13	7	94	8,554	17,108
Summer	36	9	94	30,456	60,912
Fall	17	7	94	11,186	22,372
TOTAL				50,196	100,392

Given an estimated daily operating cost of approximately \$1,700, and assuming the entry rate for vehicles remains at \$10 per vehicle, approximately 170 paid entries would be required on a daily basis in order to cover the costs of the shuttle service.

The shuttle implementation plan is high-level and developed for costing purposes.

Developing a contract for charter services will involve internal planners to confirm numbers and to develop a detailed plan, confirm routing, route times, etc

The shuttle implementation plan is based on an annual visitation of 80,000. The two shuttle option is representative of typical operations and could be dropped down to 1 bus during the less busy seasons if it was found that visitation was less.

For peak visitation (as recorded on Victoria Day 2012) 2 buses would be required throughout the day (9 hours of operation during the "summer" season) plus an additional peak-period shuttle which would operate for approximately 5 hours of the day.

It is estimated that 2 shuttles would be sufficient for typical operating conditions throughout the summer months (resulting in 4 trips per hour).

Example Scenario #1 - 2 Shuttle Buses in operation:

2 trips/hour=18 round trips

18 round trips x 2 buses (90 people occupancy) =1,620 visitors

Example Scenario #2 - 2 Shuttle Buses in operation w/ additional shuttle during peak period:

2 shuttles running 9:00am-6:00pm (9 hrs operation)

3 shuttles running 11:00am – 4:00pm (5 hrs. operation)

2 trips/hours=18 round trips x 2 Buses (90ppl) = 1,620

1 add'l trip/hour during peak = 10 round trips x 1 bus (45ppl) = 45-

Total = 2,070 visitors

To confirm the ultimate shuttle requirements detailed visitor information including a break-down of arrival times and car occupancy is required.

h) Other Factors

- Further to the location of the remote parking area, it has been recommended that a "one fee" payment system be considered by the Hamilton Conservation Authority which would permit vehicle entry, parking, and use of facilities at Christie Lake, as well as permit use of the shuttle service and pedestrian entry into the Spencer Gorge – Webster's Falls Conservation Area, thereby promoting synergy between the sites.

5.4.3 Next Steps

It is recommended that the Hamilton Conservation Authority monitor the impacts of the implemented changes to ensure that the desired traffic and parking benefits have been achieved, and that area residents are provided with opportunities to report problems and provide input throughout the monitoring program.

SECTION SIX: OPERATING COSTS/FINANCIAL OVERVIEW

6.1 Administration

From an administrative perspective, Spencer Gorge, Webster's Falls and Tew's Falls operate as one reporting unit within the Christie Lake Conservation Area business unit which is managed primarily by one superintendent and one assistant superintendent located at the Christie Lake Conservation Area. A number of services are provided by Christie Lake that is not shown in the operational costs of the Spencer Gorge reporting unit. For example, services such as central security from the Dundas Valley and garbage disposal are taken care of through the Christie Lake accounts. In addition, all senior management costs and central administration such as accounting, payroll, human resources, marketing, communications and planning, are not shown in the operational accounts for Spencer Gorge.

6.2 Capital and Maintenance Funding

Financial Constraints: Over the past 20 years, with changes in government and priorities, the Hamilton Conservation Authority's funding for park development and enhancement from the Province has almost disappeared. The City of Hamilton provides capital and major maintenance funding to the HCA called block funding. Block funding has been set at \$2,000,000 annually, for the last 3 years and is projected to remain that amount (no adjustments for inflation) for the next 10 years according to City projections. From this money the HCA needs to maintain projects or develop new ones on the 4,450 hectares (11,000 acres) HCA owns or manages as well as undertake water management projects which are no longer funded by the province or municipality. Within this \$2 million budget the HCA also undertakes major maintenance and development of two City owned properties under management agreements – Confederation Park and Westfield Heritage Village. The money is roughly divided on average annually as follows:

Confederation Park	\$510,000.00
Westfield	120,000.00
All HCA Properties	<u>1,370,000.00</u>
TOTAL	\$2,000,000.00

The Master Plans currently developed for all other projects to be completed in a 10 year time frame would require funding of approximately \$5,600,000 annually. The HCA is falling behind at an estimated rate of \$3,600,000 a year as of 2012. This number will likely increase again in 2013 as another list of delayed/unfunded projects is pushed back and with the recommendations for the additional capital expenditures recommended in the Spencer Gorge-Webster's Falls Master Plan of \$1.24 million.

The HCA is concentrating most of its funding on major maintenance items (77% in 2011, 57% in 2012) to keep existing facilities operational and/or in compliance with changing regulations as well as adding a few new facilities.

Funding for HCA operations consists of approximately 68% to 70% self generated revenues with roughly 29% to 31% from the City and 1% from the province. The City has provided no increases in each of the last 2 years and is requiring this for 2013.

6.3 Visitation to the Park/Trends and Park Use

As noted, with so many different access points to and from the Master Plan Area by foot, it is difficult to monitor exactly how many people actually visit the park on an annual basis. Accordingly, the only reliable data is based on car load estimates. Specifically, the number of cars that park within the two parking lots at Webster's and Tew's falls.

The HCA has been using the overflow parking lots for at least 20 years. Originally the HCA was only required to handle fall crowds; however, the overflow parking areas have been used for parking regularly on weekends in the summer for approximately 10 years.

6.4 Revenue: Parking

6.4.1 Visitor Volume:

An estimate of the number of visitors on an annual basis was calculated based on vehicles entering the site and the assumption that there were, on average, 2.5 people in each vehicle.

- 2010 – 28,761 cars (@ 2.5ppl/car = 71,902 ppl/year)
- 2011 – 38,403 cars (@ 2.5ppl/car = 96,008 ppl/year)

Between 2010 and 2011 there was a 25% increase in the number of people who visited the Conservation Area. In addition, an estimate of the number of visitors to the Master Plan Area on two busy long weekend days was calculated based on vehicles entering the site:

- 2011 - Thanksgiving Monday: 650 cars @ 2.5ppl/car = 1,625 ppl for the day
- 2012 - Victoria Day Weekend: 706 cars @ 2.5ppl/car = 1,765 ppl for the day

These estimates illustrate a modest increase in 8%.

6.4.2 Revenue:

Table 19 illustrates the revenue, expenditures and net profits/loss that the Conservation Area have experienced occurred since 2004. These figures indicate that the Conservation Area has generated an increase in revenue since 2007 that exceeds the expenses resulting in a yearly profit. The greater profit occurred in 2011 which is likely due, in part, to the increase in visitors to the Conservation Area.

Table 19: Revenue from Webster's Fall and Tew's Falls Area

Year	Revenue	Expense (estimate)	(loss)	Net
2004	35,200	68,800	33,600	
2005	33,700	72,500	38,800	
2006	63,900	95,700	31,300	
2007	136,300	124,250		12,050
2008	139,700	120,600		19,100
2009	168,300	150,900		17,400
2010	180,000	168,100		11,900
2011	256,000	153,800		102,200

It should be noted that in June and July of 2012 \$4,540 and \$5,050 respectively was spent on pay for police officers to assist with traffic and parking associated with the Conservation Area.

6.5 Pay Structure:

The HCA owns and maintains 4,451 hectares (11,000 acres) of Conservation Areas, and 140 km of trails. Many of these areas have no fees associated with their use. All 4,451 hectares are supported by revenues made at the few Conservation Areas that do charge a fee. Therefore, when a visitor pays a fee at one Conservation Area, they are, in fact, paying to support *all* of the properties. Upper levels of government do not provide funds for the annual operational costs of the Conservation Areas.

6.6 Maintenance

6.6.1 Washroom Facilities

The six portable toilets that service the Conservation Area are owned and serviced by the HCA. The cost of maintaining these washrooms is part of the total operational cost. They are installed in April and generally removed before the ground freezes in November. In 2012 three additional units were added at the Webster's Falls parking lot.

6.6.2 Bruce Trail and HCA

The Bruce Trail Conservancy has a written License Agreement with Conservation Hamilton that covers the responsibilities of both parties. The Iroquoian Bruce Trail Club's trail maintenance group is responsible for maintaining the trail as a footpath. This includes basic tread way maintenance to ensure it is passable (e.g. cutting back brush, repairing holes or wet areas).

6.6.3 Garbage

Garbage bags are removed from the 170 litre (45 gallon) cans on a daily basis throughout the day on the weekends, and as needed on week days. Staff remove garbage from the Creek and Gorge on a regular basis.

SECTION SEVEN: CONCEPT DEVELOPMENT

A thorough inventory and analysis was undertaken for the study area. Input from the Iroquois Bruce Trail Club, Hamilton Emergency Services, out of town visitors and local residents has been documented, and has led to an overview of the “do nothing” option, as well as two concept options with specific recommendations. The following is a description of the concept options and pros and cons for each that have led to preliminary recommendations.

It is noted that in April 2012 the HCA initiated visitor services changes to manage safety concerns, and until such time as the Master Plan recommendations were put forward. These short term changes included closing the stairs to the base of Webster’s Falls; banning the use of barbeques, the fire pit and amplified music; and restricting overflow parking at Webster's Falls parking lot. However, the Master plan recommendations are based on a thorough review of all relevant background information and studies, relevant regulations and policies, a traffic study, and public input.

7.1 Option A: Do Nothing

The first option is the “do nothing” approach. The purpose of presenting this as an option is to demonstrate clearly what the key issues are and identify the consequences of not taking any action. The first column of Table 20 illustrates a specific key feature (eg. Parking) associated with the Conservation Area, while the remaining two columns articulate the opportunities that are created, as well as the consequences (i.e. the cons) of making no changes (i.e. by doing nothing).

Table 20: Option A: “Do Nothing” - Existing Conditions

OPTION A: DO NOTHING		
No Action/Changes	Pros (opportunities)	Cons (Issues)
Parking	<ul style="list-style-type: none"> None achieved 	<ul style="list-style-type: none"> Insufficient parking capacity Use of naturalized areas to accommodate overflow parking Occurrence of on-street parking and/or illegal parking within restricted areas which impacts area residents.
Vehicular Access	<ul style="list-style-type: none"> None achieved 	<ul style="list-style-type: none"> Impeded site access due to congested traffic and parking conditions Poor site circulation Restricted access results in queuing on adjacent roadways – leads to safety concerns.
Hamilton Emergency Services	<ul style="list-style-type: none"> Vehicle access to site via Webster’s Falls Road, Ofield Road, CN lands, Lafarge lands, Harvest Road or Short/Fallsview Road 	<ul style="list-style-type: none"> Visitors have difficulty indicating where they are on site when incidents occur
Off-site Parking	<ul style="list-style-type: none"> None achieved 	<ul style="list-style-type: none"> Limited parking supply results in occurrence of on-street parking Volume and extent of on-street parking negatively impacts area residents Occurrence of on-street parking during peak periods impacts

OPTION A: DO NOTHING		
No Action/Changes	Pros (opportunities)	Cons (Issues)
		adjacent traffic operations
Trails	<ul style="list-style-type: none"> Escarpment Views; extensive; range of difficulty; linkages off site 	<ul style="list-style-type: none"> Trail erosion Unofficial trails created to cliff edge; Trail users not adhering to warning on trail difficulty
Pedestrian access	<ul style="list-style-type: none"> many points of access 	<ul style="list-style-type: none"> Lost revenue -many points of access
Fencing	<ul style="list-style-type: none"> Varying appropriate materials; delineate pedestrian trails and lookouts; 	<ul style="list-style-type: none"> Fencing being vandalized; climbable;
Signage: Wayfinding Interpretive and Warning/Regulation	<ul style="list-style-type: none"> Two site maps for orientation; warning signage and interpretive signage 	<ul style="list-style-type: none"> Directions sought out, both on and off-site Warning signs ignored; not enough; no signage at the base of Webster's Falls to deter activities that are harmful to the environment or unsafe
Picnicking	<ul style="list-style-type: none"> Adequate capacity in Webster's Falls Park 	<ul style="list-style-type: none"> Conflicts with picnic's and cars in open lawn when used for overflow parking at both Webster's and Tew's falls
Barbequing-currently prohibited use	<ul style="list-style-type: none"> Reduction in barbeque odours, smoke; 	<ul style="list-style-type: none"> a traditional and popular park use
Fire Place -current use restrictions	<ul style="list-style-type: none"> open fire concerns 	<ul style="list-style-type: none"> a traditional and popular park use
Amplified Music-prohibited use	<ul style="list-style-type: none"> reduce neighbour impacts 	
Safety/Risk Management	<ul style="list-style-type: none"> warning signage, fencing, and monitoring 	<ul style="list-style-type: none"> Extensive escarpment cliff face and informal trail cuts to the cliff edges Habitat degradation through visitor impacts Condition of Gorge stairs and overcrowding/slippery conditions Spencer Creek-water access attraction
Gorge Access-Closed	<ul style="list-style-type: none"> visitor safety with overcrowding on stairs and activity at the base of the falls reduced environmental impacts and degradation of embankments along creek 	<ul style="list-style-type: none"> Decreased visitor experience and opportunity Tourist attraction
Washrooms (6 portable toilets)	<ul style="list-style-type: none"> Increased number and location in 2012; frequency of maintenance 	<ul style="list-style-type: none"> Frequent maintenance required Visitor expectations
Environment	<ul style="list-style-type: none"> Extensive, and diverse habitat; Environmentally protected through planning controls Spectacular views 	<ul style="list-style-type: none"> Degradation occurring with uncontrolled access at the base of Webster's Falls Lack of Riparian edge for shade and habitat along Spencer Creek above the falls Erosion and visitor impacts along unofficial trails Loss of Native Carolinian Trees in Webster's Falls Park and lack of shade
Spencer Creek	<ul style="list-style-type: none"> Water access/ enjoyment of the creek 	<ul style="list-style-type: none"> creek habitat degradation; lack of shade/Riparian edges;
Landscape	<ul style="list-style-type: none"> Continuation of 	<ul style="list-style-type: none"> Lack of shade trees; degradation

OPTION A: DO NOTHING		
No Action/Changes	Pros (opportunities)	Cons (Issues)
	established landscape character	

Table 20 illustrates is that unless changes are made in the operation of the Master Plan area, existing problems and concerns will not be addressed, and in some cases, environmental degradation will continue to occur.

Two Options were prepared for the Master Plan area for consideration by the Conservation Authority and the public. These two Options were not be viewed as "either" "or" scenarios; rather, elements from each Option could be considered in the final "preferred" recommended option. The intent was for all recommendations to be considered and evaluated.

7.2 Option B

Option B seeks to provide a recommendation to address each of the issues identified throughout the master planning process. Table 21 illustrates the pros and cons of each of the recommendations in order to better evaluate the recommendations made; while Figure 12 illustrates conceptually the functional relationship between the site features, the uses and the park users. Finally, Figure 13 illustrates the location of the various changes that have been recommended for greater clarity.

Table 21: Option B

OPTION B		
Recommendations -Peak Season /weekends	Pros	Cons
Parking <ul style="list-style-type: none"> Webster's /Tew's add 'escape lane' Tew's-add lanes and 2nd pay kiosk 	<ul style="list-style-type: none"> Improved site circulation and ability to accommodate vehicle queues on-site; Additional pay station results in quicker processing of vehicles and reduces queues on Harvest Road. 	<ul style="list-style-type: none"> Does not accommodate peak parking demand; Continued need to use naturalized areas for overflow parking;
Vehicular Access <ul style="list-style-type: none"> Improve entrances to provide turn-around when lot is full 	<ul style="list-style-type: none"> achieves improved site circulation and improves access at site driveways. 	<ul style="list-style-type: none"> Does not address parking demand or traffic volume; Continued congestion and impeded site access; Requires continued police control at the intersection of Harvest Road and Short Road.
Hamilton Emergency Services <ul style="list-style-type: none"> add wayfinding markers; extend vehicular access 	<ul style="list-style-type: none"> improve response w/location markers; provides for improved access for emergency vehicles 	
Off-site Parking <ul style="list-style-type: none"> consider adjacent Lands i.e: closed <i>land fill</i> 	<ul style="list-style-type: none"> remote parking area will have the capacity to accommodate peak parking demands 	<ul style="list-style-type: none"> Site remediation concerns: trail impacts from additional load to Dundas Peak; safety concerns
Trails <ul style="list-style-type: none"> improve trail alignment, 	<ul style="list-style-type: none"> improved visitor experience and 	

OPTION B		
Recommendations -Peak Season /weekends	Pros	Cons
surfaces, drainage and safety	safety	
Pedestrian access <ul style="list-style-type: none"> provide bike parking Improve visibility of pay stations Provide wayfinding signage for trail linkages 	<ul style="list-style-type: none"> Improve orientation and promote trail linkages to Crooks Hollow Heritage Trail and the Bruce Trail Improved pedestrian and cycling safety with reduction of traffic on local roads 	
Fencing <ul style="list-style-type: none"> Decorative fence along upper Webster's creek south side, and new overlook (decorative, heritage style fencing/lookouts) 	<ul style="list-style-type: none"> Enhanced safety and reduction in risk management 	
Signage: Wayfinding Interpretive and Warning/Regulation <ul style="list-style-type: none"> Directional to site Directional to Webster's/Tew's warning signage and regulation signage-international symbols 	<ul style="list-style-type: none"> Improved visitor services -directional and interpretive safety 	
Picnicking	<ul style="list-style-type: none"> Additional trash receptacles; additional open lawn designated areas 	
Barbeque <ul style="list-style-type: none"> allow 	<ul style="list-style-type: none"> Continue to meet expectation of visitors who come to picnic Traditional park use 	<ul style="list-style-type: none"> Promotion of picnic facility and potentially larger gatherings, where other facilities are better equipped at present with washrooms, and concession
Fire Place <ul style="list-style-type: none"> Removal of fireplace 	<ul style="list-style-type: none"> Reduce vandalism and after-hours activity 	<ul style="list-style-type: none"> Elimination of a facility previously enjoyed by visitors
Safety/Risk Management <ul style="list-style-type: none"> location markers for HES response additional fencing and warning signage 	<ul style="list-style-type: none"> quicker response for HES as they will not waste time sending response teams to the wrong part of the Conservation Area 	<ul style="list-style-type: none"> Still cannot guarantee that visitors are truly aware of the signification of location markers. People will still ignore fencing and warning signage if they choose to
Gorge Access <ul style="list-style-type: none"> Closed establish a habitat and wildlife management plan Suggest City of Hamilton consider stairs in another location, and potentially as part of Highway No. 8 review. 	<ul style="list-style-type: none"> Cost savings Reduce impacts to sensitive areas Reduce risk of activities in Gorge including open fires, 'walking behind the falls' and visitors slipping on sleek rocks 	<ul style="list-style-type: none"> Removal of key HES access Visitors will no longer be able to appreciate lower Gorge Eliminate any future connections to Dundas (pending CN rail crossing) encourages access down steep embankments as visitors will still try and access the Gorge or get closer to the falls

OPTION B		
Recommendations -Peak Season /weekends	Pros	Cons
		<ul style="list-style-type: none"> • Pedestrian access from bottom to top of the escarpment from Dundas-
Washroom <ul style="list-style-type: none"> • New permanent w/tile bed 	<ul style="list-style-type: none"> • Improve Visitor Services 	<ul style="list-style-type: none"> • Cost significant
Spencer Creek <ul style="list-style-type: none"> • Moderate riparian creek planting 	<ul style="list-style-type: none"> • Existing pastoral landscape character along Spencer Creek • Some shade for creek/habitat 	<ul style="list-style-type: none"> • Lack of extensive shaded riparian zone planting for habitat restoration
Environmental restoration <ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Habitat restoration • erosion control • restore sections impacted by informal trails • restore Tall Oak Woodland and prairie remnant communities 	
Landscape <ul style="list-style-type: none"> • Native Shade Trees • Resurfaced walkways; benches 	<ul style="list-style-type: none"> • maintain views and vistas to features; defined mown lawn areas, • Provide additional site features: benches, trash receptacles 	

Option B proposes changes to both parking areas to improve access, but not necessarily the volume of traffic. There is limited benefit to neighbouring property owners as it does not address the capacity of the parking lots; rather it allows for more efficient movement of the traffic once the lots are full. However, from an environmental perspective this Option provides the greatest protection as it proposes the elimination of the stairs to the Gorge as well as future access to the Gorge. It also proposes reduced public access to Spencer Creek above the escarpment through the naturalization of both sides of the Creek above the falls.

Figure 12 is a functional diagram that represents the relationship between site features and uses. It shows how the pedestrian and vehicular circulation relates to the various features within the Master Plan area and is used in the development of the more detailed master plan option:

- The blue and purple bubbles relate to vehicular circulation and parking. The diagram illustrates that improved vehicular stacking is recommended as well as the addition of exit lanes at the two parking lots. A pay kiosk is recommended, as well as improved stacking at the Tew’s Parking lot, while improvements to accessible parking and the provision of an exit lane is recommended for Webster’s Falls parking lot. Overflow parking in the lawn areas would continue based on this Option on peak season weekends. Improved signage is recommended at the Optimist Park parking lot.
- The green bubble relates to the primary open space/picnic area of Webster’s Falls park. The following recommendations are made: close sections of walkways that are unsafe, moderate riparian creek plantings to naturalize the creek adjacent to the open picnic lawn area, and add more shade trees to enhance the historical park-like.

- The yellow bubbles relate to site features including overlooks, signage, the stairs, barbecue facilities, and washrooms. A range of improvements are recommended including: add section of railing at Dundas Peak, improved signage throughout the park, add permanent washrooms and close the stairs to the Gorge.
- The orange triangles indicate a recommended way-finding marker system to assist HES by dividing the Master Plan area into 7 primary, identifiable areas. Once people are made aware of the numbering system, it is hoped that when 911 calls come in, that visitors will be better able to articulate where they are in the Park.

Figure 12: Option B – Functional Relationship

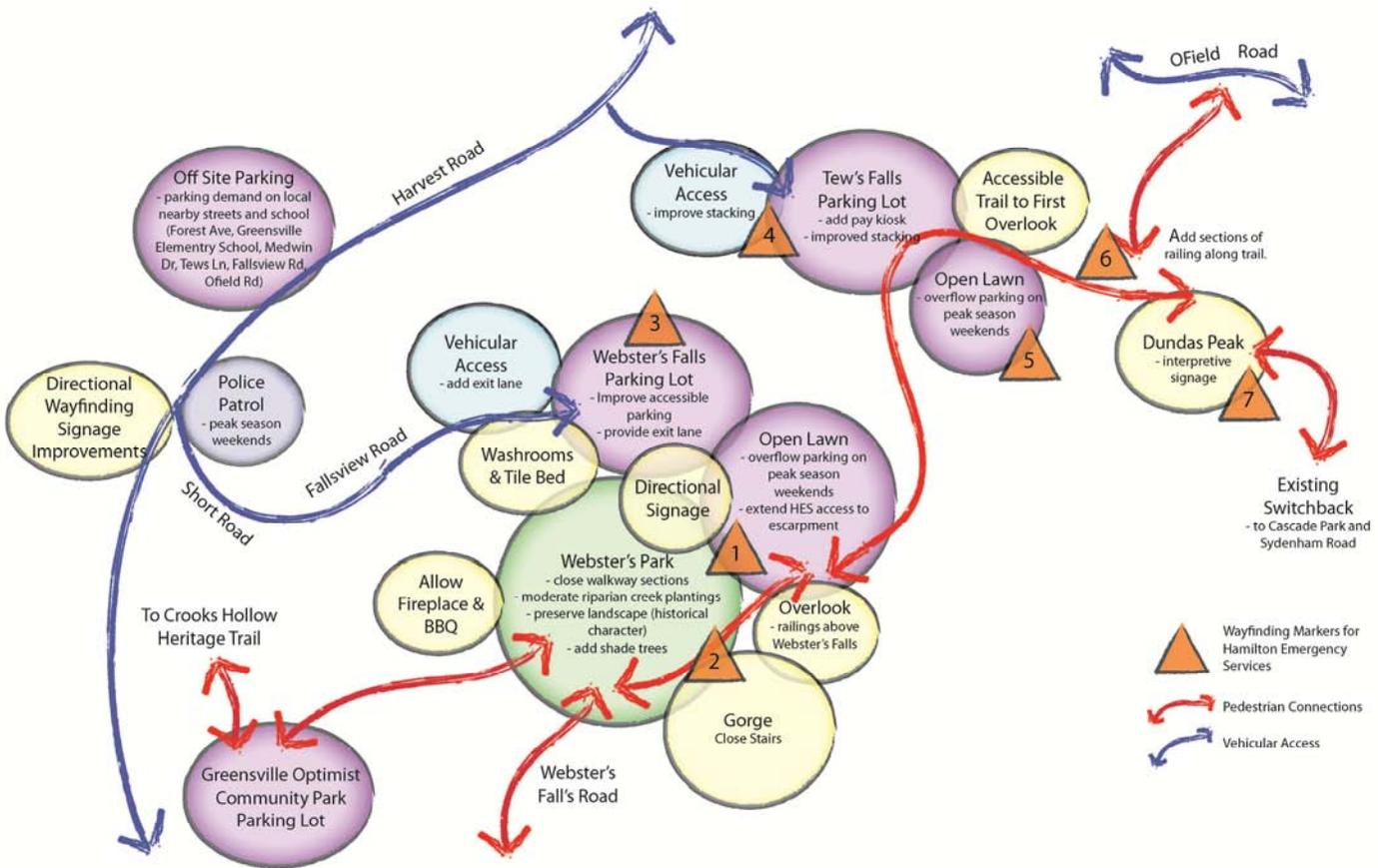


Figure 13 illustrates how the bubble diagram can more specifically be applied to the Master Plan Area by identifying where the improvements are recommended.

7.3 Option C

As with the previous option, Option C seeks to address the issues identified throughout the master planning process. Table 22 illustrates the pros and cons of each of the recommendations in order to better evaluate them; while Figure 14 illustrates conceptually the functional relationship between the site features, the uses and the park users. Finally, Figure 15 illustrates the location of the various changes that have been recommended.

Table 22: Option C Recommendations

OPTION C		
Recommendations -Peak Season /weekends	Pros	Cons
Parking <ul style="list-style-type: none"> shuttle service –weekends Parking supply available at Christie Conservation Area, to accommodate peak parking demands On-site parking closed peak season weekends with prominent information signage located along access roads 	<ul style="list-style-type: none"> Pros in report -Refer to Section 5 Christies HCA is easily accessible; in close proximity to SGWF; provides good existing visitor services ; shuttle 'hub' /visitor services opportunity; promotion of other Conservation Areas –expanding and improving the visitor experience Easier to organize family groups Accessible transit to site 	<ul style="list-style-type: none"> Wait and travel time Transport of strollers, walkers, coolers, lawn chairs
Vehicular Access	<ul style="list-style-type: none"> Pros in report -Refer to Section 5 Reduced automobile traffic to and from the site 	
Hamilton Emergency Services <ul style="list-style-type: none"> add way finding markers; extend vehicular access at Webster's Falls Parking Lot Improve shoulder at Ofield Rd. pending City of Hamilton approval 	<ul style="list-style-type: none"> improve response w/location markers at seven key locations Gorge stair and boardwalk designed to provide improved HES access 	
Off-site Parking <ul style="list-style-type: none"> City of Hamilton sign no-parking on side streets Suggest to the City of Hamilton that a 'Parking Plan' be done by the City of Hamilton for the surrounding residential area 	<ul style="list-style-type: none"> Reduce the existing parking on side streets and reduce the numbers of pedestrians walking down Short/ Fallsview Road or Harvest Road where there are no sidewalks 	<ul style="list-style-type: none"> Parking restrictions and controls not currently in place
Trails <ul style="list-style-type: none"> improve trail surfaces Improve drainage close trail section north east of Cobblestone Bridge 	<ul style="list-style-type: none"> improve surfaces and erosion control; increase carrying capacity of trail from Webster's parking lot to the Cobblestone Bridge 	
Pedestrian access <ul style="list-style-type: none"> provide bike parking Improve visibility of pay stations 	<ul style="list-style-type: none"> Improve orientation and promote trail linkages to Crooks Hollow Heritage Trail and the Bruce Trail Improved pedestrian and cycling 	

OPTION C		
Recommendations -Peak Season /weekends	Pros	Cons
<ul style="list-style-type: none"> Provide wayfinding signage for trail linkages 	<ul style="list-style-type: none"> safety with reduction of traffic on local roads 	
Fencing <ul style="list-style-type: none"> Decorative fence upper Webster's- 4' black chain link fencing along trail sections 	<ul style="list-style-type: none"> Decorative, heritage style fencing/lookouts Trail fencing along cliff at strategic locations-improve safety 	
Signage: Wayfinding Interpretive and Warning/Regulation <ul style="list-style-type: none"> Directional to site Directional to Webster's/Tew's warning signage and regulation signage-international symbols 	<ul style="list-style-type: none"> Improved visitor services and HES services safety 	
Picnicking	<ul style="list-style-type: none"> Additional trash receptacles; in-ground units; Recycle units additional open lawn designated areas 	
Barbeque <ul style="list-style-type: none"> Restricted 	<ul style="list-style-type: none"> Reduce prolonged park use reduce resident concerns re: fire/smell/smoke; 	<ul style="list-style-type: none"> prohibits traditional park use
Fire Place <ul style="list-style-type: none"> removed 	<ul style="list-style-type: none"> Reduce vandalism and afterhours activity 	
Safety/Risk Management <ul style="list-style-type: none"> location markers for HES response additional fencing and warning signage 	<ul style="list-style-type: none"> improved emergency response increase safety 	
Gorge Access <ul style="list-style-type: none"> New stairs boardwalk and railings in lower Gorge to protect sensitive environment 	<ul style="list-style-type: none"> accommodate capacity of peak season use HES access to lower Gorge Pedestrian appreciation of the lower Gorge 	<ul style="list-style-type: none"> promotes use of lower Gorge trail: Future connection to Dundas pending, therefore unofficial lower Gorge trail to be signed-fence off CN lands access to base of Waterfall, and 'walking behind the falls' or other risky activity promotes further degradation of the Spencer Creek and surrounding forested habitat cost of stairs and boardwalk
Washroom <ul style="list-style-type: none"> New permanent w/tile bed 	<ul style="list-style-type: none"> Improve Visitor Services 	<ul style="list-style-type: none"> cost of stairs and boardwalk
Spencer Creek <ul style="list-style-type: none"> Expand Riparian Edge planting Provide interpretive signage 	<ul style="list-style-type: none"> shade watercourse, keeping it cool and providing breeding conditions naturalized edge to discourage water 'recreation' 	<ul style="list-style-type: none"> reducing mown lawn areas

OPTION C		
Recommendations -Peak Season /weekends	Pros	Cons
on watershed	<ul style="list-style-type: none"> reducing mown lawn areas 	
Environmental restoration <ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Habitat restoration erosion control restore sections impacted by informal trails restore Tall Oak Woodland and prairie remnant communities 	
Landscape <ul style="list-style-type: none"> Native Shade Trees Resurfaced walkways; benches 	<ul style="list-style-type: none"> maintain views and vistas to features; defined mown lawn areas, Provide additional site features: benches, trash receptacles 	

Figure 14 is a functional diagram that represents the relationship between site features and uses in Option C. It shows how the pedestrian and vehicular circulation relates to the various features within the Master Plan area and is used in the development of the more detailed master plan option.

Once again, the blue and purple bubbles relate to vehicular circulation and parking. The diagram illustrates the removal of weekend parking at all parking lots and the implementation of a shuttle service from Christie Conservation Area to the Master Plan area.

The green bubbles relate to the primary open space/picnic area of Webster’s Falls park. The following recommendations are made: close sections of walkways that are unsafe, add moderate riparian creek plantings to naturalize the creek adjacent to the open picnic lawn area, and add more shade trees to enhance the historical park-like.

The yellow bubbles relate to site features including overlooks, signage, the stairs, barbeque facilities, and washrooms. A range of improvements are recommended including: the removal of barbeque and fire place facilities, the addition of sections of railing at Dundas Peak, improved signage throughout the park, the addition of permanent washrooms and the replacement of the stairs to the Gorge.

The orange triangles indicate a recommended way-finding marker system to assist HES by dividing the Master Plan area into 7 primary, identifiable areas. Once people are made aware of the numbering system, it is hoped that when 911 calls come in, that visitors will be better able to better articulate where they are in the Park.

Figure 14: Option C - Functional Relationship

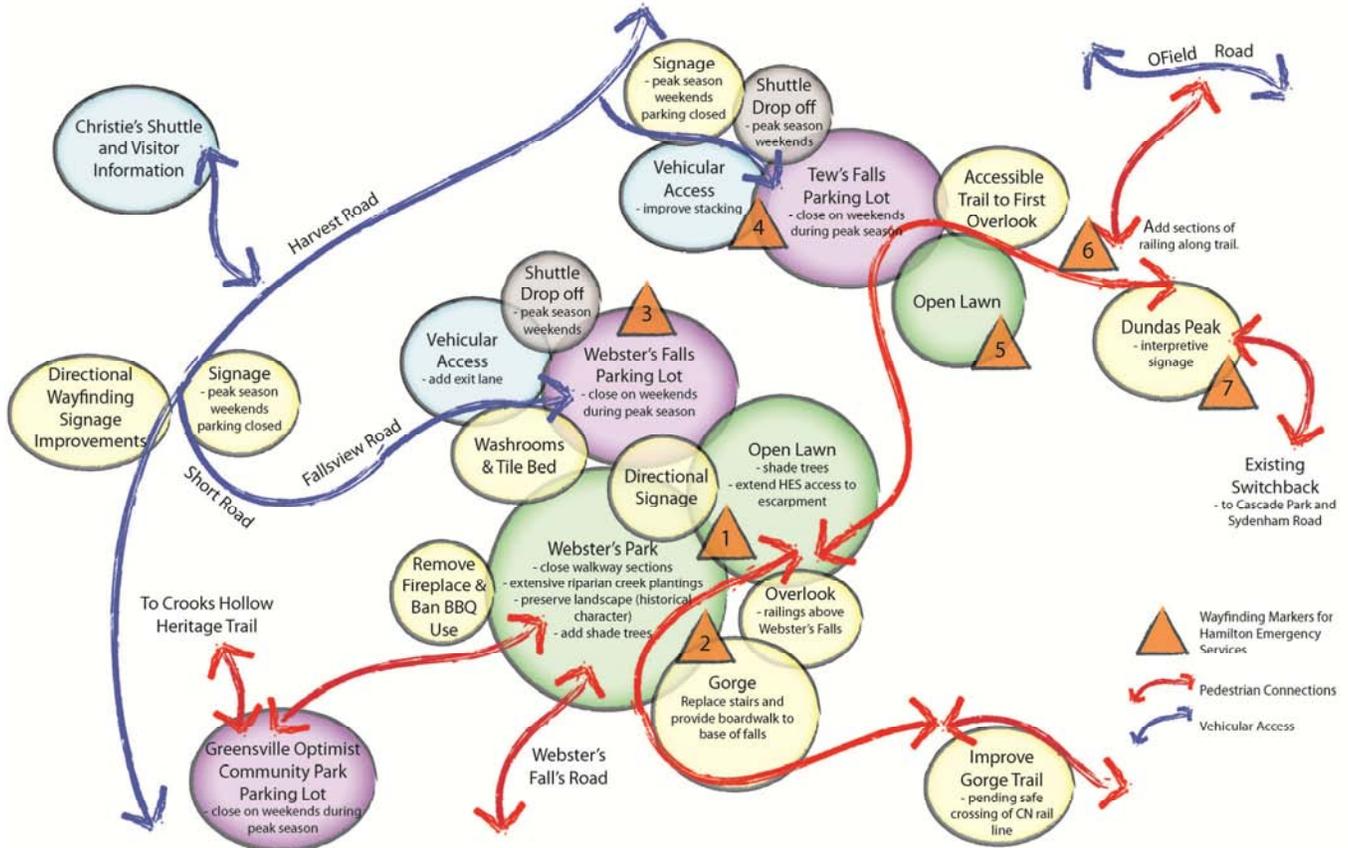
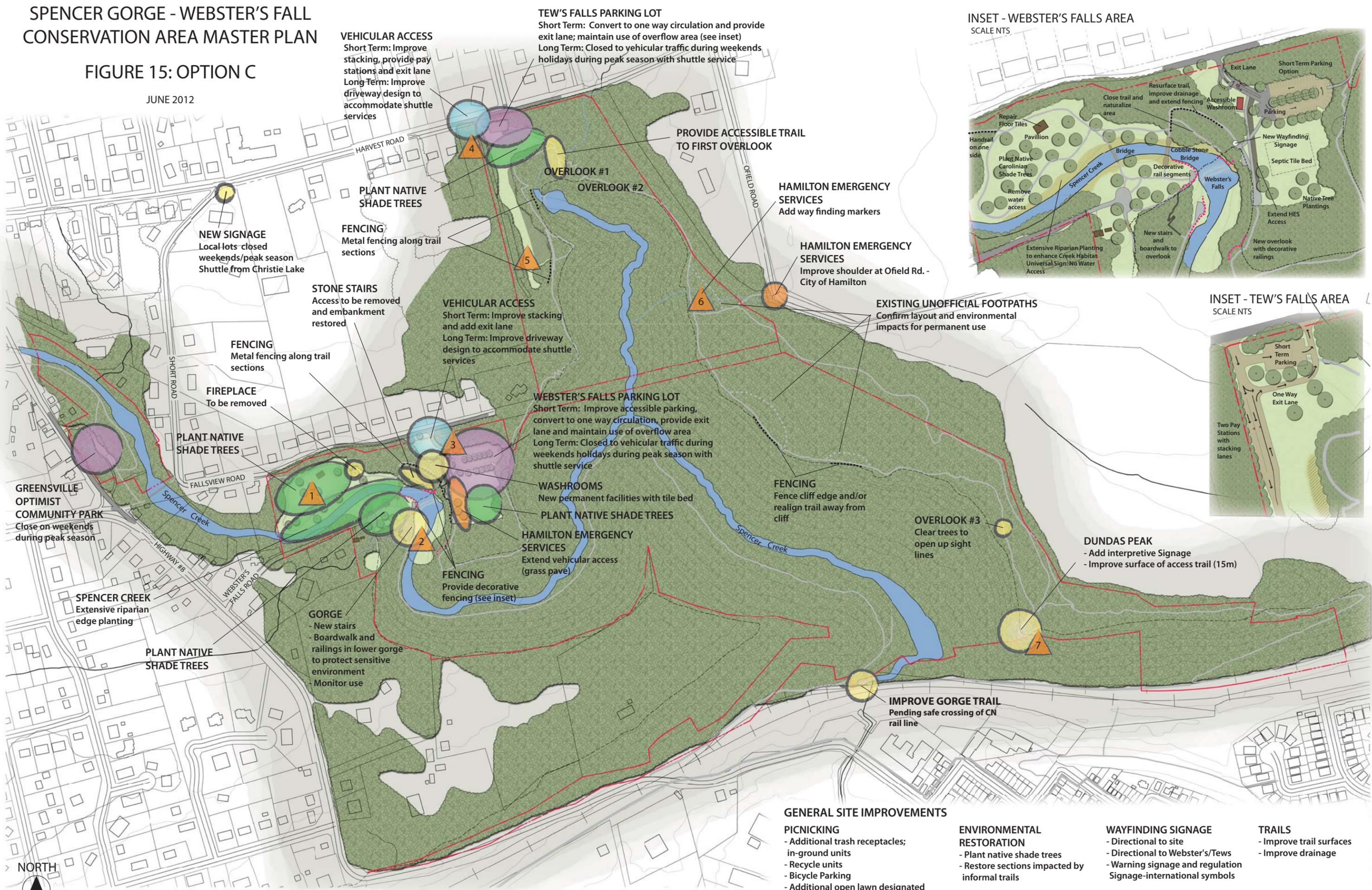


Figure 15 illustrates how the bubble diagram can more specifically be applied to the Master Plan Area by identifying where the Option C improvements are recommended.

SPENCER GORGE - WEBSTER'S FALL CONSERVATION AREA MASTER PLAN

FIGURE 15: OPTION C

JUNE 2012



TEW'S FALLS PARKING LOT
 Short Term: Convert to one way circulation and provide exit lane; maintain use of overflow area (see inset)
 Long Term: Closed to vehicular traffic during weekends holidays during peak season with shuttle service

VEHICULAR ACCESS
 Short Term: Improve stacking, provide pay stations and exit lane
 Long Term: Improve driveway design to accommodate shuttle services

PROVIDE ACCESSIBLE TRAIL TO FIRST OVERLOOK

HAMILTON EMERGENCY SERVICES
 Add way finding markers

HAMILTON EMERGENCY SERVICES
 Improve shoulder at Ofield Rd. - City of Hamilton

EXISTING UNOFFICIAL FOOTPATHS
 Confirm layout and environmental impacts for permanent use

VEHICULAR ACCESS
 Short Term: Improve stacking and add exit lane
 Long Term: Improve driveway design to accommodate shuttle services

WEBSTER'S FALLS PARKING LOT
 Short Term: Improve accessible parking, convert to one way circulation, provide exit lane and maintain use of overflow area
 Long Term: Closed to vehicular traffic during weekends holidays during peak season with shuttle service

WASHROOMS
 New permanent facilities with tile bed

HAMILTON EMERGENCY SERVICES
 Extend vehicular access (grass pave)

OVERLOOK #3
 Clear trees to open up sight lines

DUNDAS PEAK
 - Add interpretive Signage
 - Improve surface of access trail (15m)

GORGE
 - New stairs
 - Boardwalk and railings in lower gorge to protect sensitive environment
 - Monitor use

IMPROVE GORGE TRAIL
 Pending safe crossing of CN rail line

INSET - WEBSTER'S FALLS AREA
 SCALE NTS



INSET - TEW'S FALLS AREA
 SCALE NTS



GENERAL SITE IMPROVEMENTS

- PICNICKING**
- Additional trash receptacles; in-ground units
 - Recycle units
 - Bicycle Parking
 - Additional open lawn designated areas

- ENVIRONMENTAL RESTORATION**
- Plant native shade trees
 - Restore sections impacted by informal trails

- WAYFINDING SIGNAGE**
- Directional to site
 - Directional to Webster's/Tews
 - Warning signage and regulation Signage-international symbols

- TRAILS**
- Improve trail surfaces
 - Improve drainage

7.4 Option Summary - Site Features

This section of the report provides a summary and comparison of principal differences between the recommendations made in Options B and C.

7.4.1 Gorge Access

Option B - Access to the lower Gorge is closed. This provides the greatest environmental protection to the lower Gorge and sensitive area where degradation of the embankments has occurred as a result of 'recreational' water activities occurring at the base of the falls. Emergency access is only afforded to staff and Hamilton Emergency Services.

Option C - New metal stairs to the Lower Gorge is recommended to replace the existing stairs. The stair design would allow access by Hamilton Emergency Services with 1.5 metre wide stairs and large rest landing/overlooks to reduce the degree of difficulty for the descent to the Gorge, and provide a safe landing opportunity with rest stations (possibly including benches). At this point the visitor can choose to either descend further or go back up without feeling that they are in the way of other visitors.

A boardwalk and lookout are recommended at the base of the falls to reduce visitor impacts to the creek and vegetated embankments, with interpretive signage to describe the sensitive natural areas, and highlight restoration efforts.

Option C would also minimize environmental degradation, by restricting pedestrian disturbance to the cliffs and vegetation. Warning signage to identify the danger in climbing the cliff faces or walking behind the falls is recommended. Relocating the stairs was considered; however, the existing location is most viable due to the topography and relatively open viewing area at the bottom of the falls. In this Option, environmental impacts are mitigated, while also providing visitor experience of accessing the Gorge. It is noted that Hamilton Emergency Services access and rescue operations are supported through stair design. A viewing area at the bottom of the stairs and information about the fragile ecology is also recommended.

7.4.2 The Gorge Trail

Option B - The lower Gorge trail is closed to provide the greatest environmental protection. Of particular concern is the environmentally sensitive flora and fauna in the Gorge, and the recently discovered Tufa mound which is within 100 metres of the base of the falls. The remnant trail skirts the edge of this formation; however when the Creek water levels are higher, hikers walk through the tufa formation.

Option C - The provision of fencing and a boardwalk to move visitors through this sensitive area is recommended. This will provide the best visitor experience of the lower Gorge, and potential for future connection to Dundas, while better protecting the natural features within the Gorge.

7.4.3 Bruce Trail Side Trails/ Other Trails

Options B and C - The primary trail between Webster's Falls to the cobblestone bridge is recommended to be resurfaced with textured concrete, and constructed with a drainage sub-drain and

gutters. A recycled option to consider is the reuse of crushed recycled concrete as the dry aggregate for new concrete work.

The Bruce Trail Side Trails are recommended to be re-aligned where appropriate away from the cliff edge, and as determined on site, and/or fence sections on the cliff's edge where trails are particularly narrow and have a cross slope toward the cliff. A 1.2 metres (4 foot) high chain link fencing or split rail and metal bar is recommended. Consideration should be given to providing sections of wood steps and landings with screenings for access to Dundas Peak. Trails should also be better signed to indicate level of difficulty as well as the need for proper hiking shoes. Finally, sections of trail cut into cliff edges should be fenced, replanted, and signed as restoration areas.

7.4.4 Accessible Trail

Option B and C – Both Options recommend the provision of concrete or asphalt surfaces for an accessible trail from the Tew's parking lot to the first overlook. This will require the adjustment of the bollard location and ramp up to the overlook.



For the hard surface trail leading down from Webster's parking lot area, to the Cobblestone bridge, gutters are recommended for erosion. In addition, the fence location should be adjusted to the base of slope of the east side, to reduce pedestrian impacts.

7.4.5 Spencer Creek

Option B - Moderate planting along Creek above the falls are recommended; however, no access to the lower Gorge is recommended. These riparian creek enhancements follow the Hamilton-Halton Watershed Stewardship recommendations, which support a vegetated riparian buffer to provide shaded edges to the creek.

Option C – Option C recommends the addition of warning signs including universal symbols to stay out of the creek in the area above the falls. In addition, defined lookouts and boardwalks in the lower Gorge at the base of Webster's Falls is recommended.

While the HCA has already signed a warning to “stay out of the water”, additional signage is required. This section of Spencer Creek leads to a waterfall and is unsafe for pedestrians as the level of water and velocity can fluctuate, posing a danger. However the man-made stone embankments, stone bottom and shallow depth are enticing for visitors who feel that the water is accessible and safe for their families to wade in. Accordingly, multi-language signage featuring no-water activity is recommended to be placed along the creek

7.4.6 Landscape Character

Option B and C - The heritage landscape character of Webster's Park is an important cultural legacy and features open vistas to site features such as the cobblestone bridge, set off by large expanses of open lawn. This landscape can be further enhanced through design to enhance this character, while also providing additional shade through the planting of native shade trees and planting along the

creek to provide cooling shade and habitat enhancement within the creek. The natural balance of the creek, planting, open lawns and heritage elements are all important elements and can be designed to enhance the space. Native Trees such as Sugar Maple, Hickory, and Oak, are recommended. In order to assist in the funding of this recommendation, it is suggested that the tree recognition program which began at Greensville Optimist Community Park with memorial plaques in memory of local residents.

7.4.7 Picnic Areas

Option B and C - There is enough capacity in the existing open lawn areas to accommodate the numbers of visitors who are currently picnicking, as well as capacity for an increase in the numbers. However, in order to improve visitor services it is recommended that additional shade trees, picnic tables, drinking water (vending machine) and washrooms be provided.

The recommended removal of the fire place may reduce the evening after-hours unsupervised use of this area, and may reduce the vandalism to some extent. Therefore, it is recommended that the fire place be removed, and staff monitor how many picnic tables can safely be placed in the park.

7.4.8 Signage

Option B and C - Appropriate and consistent signage is key to the functional operation, safety and enjoyment of the Master Plan area. It is recommended that universal graphic symbols for warning, and trail classification be provided as well as much needed way-finding, directional signage and maps. This will assist visitors to identify where they are and relative distances to and from parts of the park. In addition, Hamilton Emergency Services markers are recommended for locating visitors within the Conservation Area.

The following demonstrates where and for what reasons signage is recommended throughout the Master Plan area.

- Indicate water danger – above, below and around the falls because the rocks are slippery and the current can be strong;
- Educate park and trail users about sensitive areas and desired conduct, as well as, information about points of interest;
- Discourage encroachment into natural areas (e.g., dumping of landscape maintenance refuse);
- Provide adjacent land owners with information regarding invasive and undesirable species to avoid when planting in proximity to the Conservation Area;
- Provide directional/wayfinding signage at the top of the walkway leading to Webster's Falls Park and showing trail to Tew's Falls;
- Provide additional wayfinding signage between the Crooks Hollow Heritage Trail links to the Greensville Optimist Community Park and to Webster's Falls, as well as wayfinding signage from Christie Conservation Area; and
- Install wayfinding markers for orientation and Emergency Services reference.

7.4.9 Fencing

Option B – The extension of the metal fencing at Webster's Falls lookout, on both sides of the creek is recommended.

Option C – The extension of the metal fencing at Webster's Falls lookout is recommended, as well as a new lookout along the trail beyond the accessible lookout above Webster's Falls. In addition, a black 1.5 metre (5 foot) decorative steel fencing is recommended along the trail/cliff edge. (Note: a more detailed inventory of conditions is required to determine the exact placements of fencing.)

7.4.10 Overlooks

Option B and C – Both options propose overlooks at bench locations just past the accessible overlook for safety purposes and to discourage visitors from climbing down to the edge.

7.4.11 Washrooms

Option B and C - Permanent washrooms are recommended to be installed at the Webster's parking lot. The proposed washrooms and associated tile bed should be located just inside and adjacent to the accessible walk and in proximity to the parking lot. The septic tile bed could be located in the current open lawn area, or adjacent to the reconfigured entry drive.

7.4.12 Garbage/Ash Bins

Option B – Encourage pack in /pack out policy. Additional trash bins at trail leading from Tew's to Webster's as well as dog litter bags.

Option C – Encourage pack in-pack out policy.

7.4.13 Emergency Services

Option B and C – One of the key issues identified by Emergency Services pertains to the early identification of exactly where an emergency incident occurs in the Conservation Area. Those who call 911 for help have difficulty describing where they are. HES suggests seven markers be installed in the Conservation Area, to help define the area where an incident has occurred. The markers would be numbered, and referenced to wayfinding maps located in the Conservation Area. The signs would be as follows:

Area Marker No.	Location
1	Top of Webster's Falls at lookout
2	Bottom of Webster's Falls
W3	Webster's Parking Lot
T4	Tew's' Parking Lot
5	Tew's far end of open lawn area and gravel turn around
6	Junction of trails between Tew's Falls and Dundas Peak, where walk in from Ofield
7	Dundas Peak

7.4.14 Parking

Option B - Short Term Improvements. Refer to Section 5.4.

Short Term improvements are proposed as an interim step until the shuttle service can be implemented.

Option C – This Option recommends a long term solution to the parking, access, congestion, capacity and safety issue centred around vehicular traffic. This recommendation includes the closure of all 3

parking lots on weekends. Instead of on-site parking, a shuttle service is recommended from Christie Conservation Area to Webster's and Tew's Parking lots. This service would be offered every weekend between the May long weekend through to Thanksgiving.

With such large numbers looking for open space, water and family picnic areas, the HCA and Tourism Hamilton have an opportunity to promote the Christie Lake Conservation Area, while making family group gatherings more enjoyable and convenient. Christie Lake is easier to find, and large family groups can meet in the large parking lots and ensure all members going to venture to the Spencer Gorge-Webster's Falls Conservation Area are in one group.

The shuttle service would also be with-in walking tour/shuttle distance to Crooks Hollow, which, it has been discovered, many of the visitors surveyed on May 20th, were not aware of. HCA can promote Christie Lake Conservation Area as a family destination including open lawn for games, beach water activities and washroom and concession buildings.

SECTION EIGHT: MASTER PLAN

8.1 Recommended Master Plan

As a result of the analysis of public input, site opportunities and constraints, user needs, environmental documentation available, an understanding of market demand and increased visitation, a final concept plan illustrated in Figure 16 recommends the following:

Recommendations	Implementation Tasks
Market a Consistent Vision	<ul style="list-style-type: none"> • Collaborate with other agencies promoting the Spencer Gorge-Webster's Falls Conservation Area. • Identify who is to promote the area and collectively develop a consistent vision and message identifying the Spence Gorge-Webster's Falls Conservation Area as a unique natural wilderness to be protected, where visitors may also enjoy hiking and limited passive recreational activities.
Improve Parking - Phase 1: Short term	<ul style="list-style-type: none"> • Target implementation over 1 to 3 years. • Re-design driveway for Webster's parking lot to provide exit lane. • Re-design driveway at Tew's parking lot to provide multiple stacking/pay lanes and an additional exit lane east of the parking area.to Harvest Road subject to City of Hamilton review. • Re-grade and landscape restoration of Tew's parking lot area. • Relocate pay stations at Tew's, add second station and an alternate pay system (i.e., increase parking rate during peak periods and provide alternate payment methods). • Improve 'Lot Full' Signage. • Add large one way sign at entrance to Greensville Optimist Community Park parking lot and extend rock bollards along entry drive to ensure protection of memorial trees.
Improve Parking - Phase 2: Long Term	<ul style="list-style-type: none"> • Implement bus shuttle service on weekends during peak season. • Utilize parking supply available at Christie Lake Conservation Area, to accommodate peak parking demands at Spencer Gorge-Webster's Falls Conservation Area. • Close on-site parking (i.e. Webster's Falls/Tew's Fall and Greensville Optimist Community Park parking lots) during peak season weekends with prominent information signage located along access roads and implement shuttle service.
Limit Off-site Parking	<ul style="list-style-type: none"> • Meet with the City of Hamilton to discuss the preparation and implementation of a comprehensive Parking Plan to address on-street parking during both the Phase 1 and Phase 2 parking improvements noted above.

Recommendations	Implementation Tasks
Improve Trails	<ul style="list-style-type: none"> • Improve surface and drainage of trail from Webster's parking lot to the Cobblestone Bridge. • Close trail section north east of Cobblestone Bridge. • Initiate discussions between HCA, CN Rail, the Iroquoia Bruce Trail Club and the City of Hamilton, to determine an appropriate access from Dundas, into the Gorge and opportunities to reinstate the Bruce Trail Main Trail. • Assess the Gorge trail to determine its condition and determine what improvements required. • Implement clear signage indicating Glen Ferguson Side trail as the main trail to access Dundas Peak. • Monitor Webster's Falls Side trail section between Tew's Falls and Dundas Peak to determine which section along the rim to close due to safety concerns and environmental degradation.
Enhance Pedestrian access	<ul style="list-style-type: none"> • Improve orientation and promote trail linkages to Crooks Hollow Heritage Trail and the Bruce Trail. • Add bike parking. • Improve visibility of pay stations. • Provide wayfinding signage for trail linkages.
Add Fencing	<ul style="list-style-type: none"> • Extend decorative iron fencing at Webster's Falls. • Implement split rail and galvanized fencing along cliff at strategic locations.
Add Overlooks	<ul style="list-style-type: none"> • Provide new overlook above Webster's Falls and to the east of the accessible overlook.
Implement Wayfinding/ Interpretive/ Warning Sign Strategy	<ul style="list-style-type: none"> • Prepare an overall sign/wayfinding strategy to ensure consistent theme for marketing, and appropriate letter size etc., for directional, information and warning signs, etc for the Conservation Area. • Install warning signage and regulation signage using Universal language including "no rock climbing"; "fall danger"; "steep cliff", etc. • Install signage and QR scan code technology to indicate sensitive habitat and importance of environmental protection. • Provide additional directional signage at the top of the walkway from the Webster's Falls parking lot to Webster's Falls and Tew's Falls. • Add an information panel with map and a "you are here" locator. • Provide another map with additional directional information. • Uniform sizes, colours and fonts
Improve Picnic Areas	<ul style="list-style-type: none"> • Promote pack –in/pack out policy • Plant shade trees. • Provide additional picnic tables. • Open lawn area at Webster's Park as picnic and open space area
Eliminate Barbeque facilities	<ul style="list-style-type: none"> • Prohibit barbeques.
Fire Place	<ul style="list-style-type: none"> • Remove fire place.
Implement HES Location	<ul style="list-style-type: none"> • To enhance safety/risk management at the Conservation Area, install location

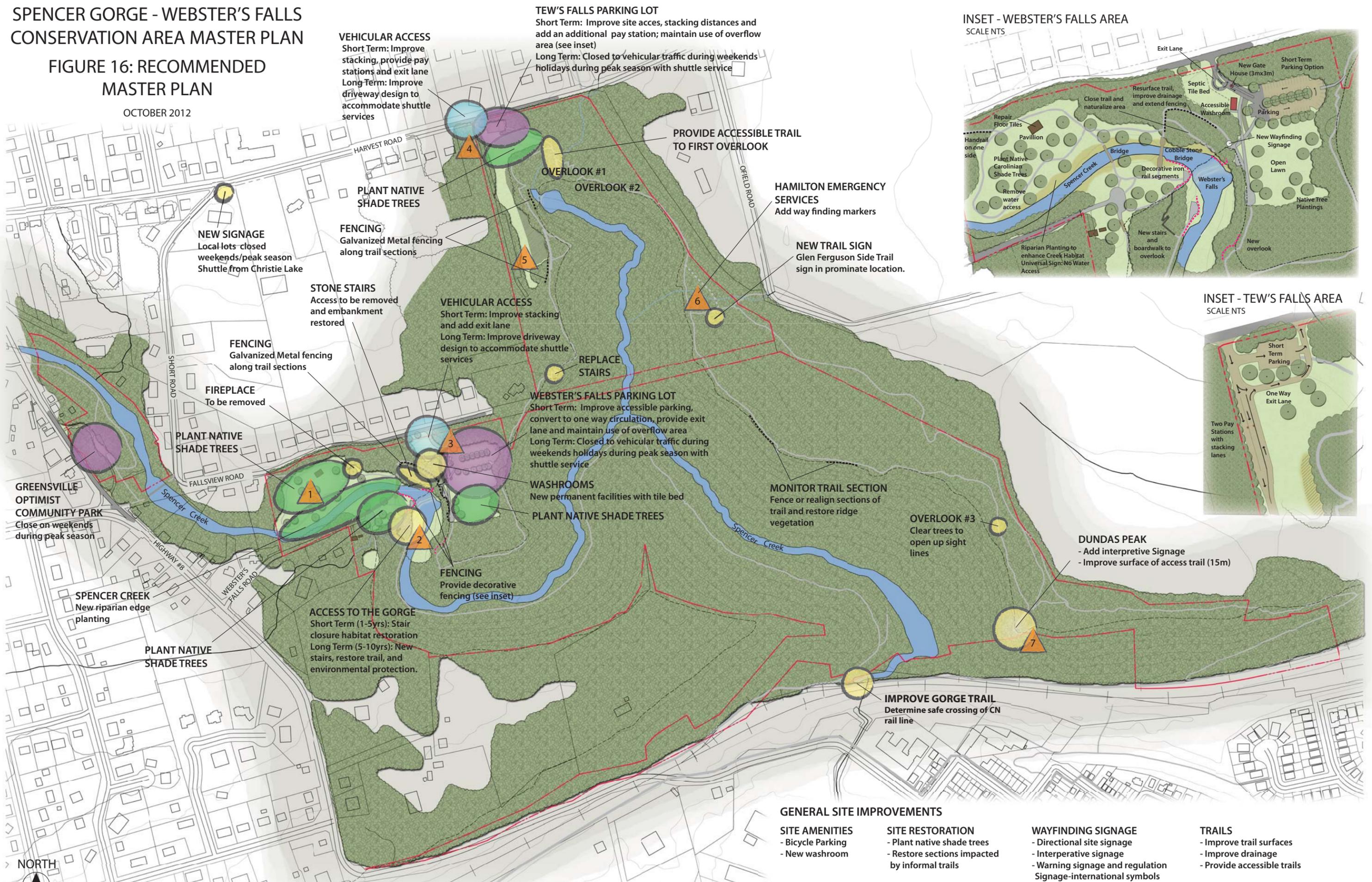
Recommendations	Implementation Tasks
<p>Markers</p>	<p>markers at seven key locations within the Conservation Area to improve HES response time.</p> <ul style="list-style-type: none"> • Coordinate with HES to ensure dispatch is aware of marker system. • Improve shoulder at Ofield Rd. pending City of Hamilton approval. • Add fencing and warning signage.
<p>Implement a 2-phased approach to future access to the Gorge</p> <ul style="list-style-type: none"> • Phase 1: Short Term Implementation 	<ul style="list-style-type: none"> • Continue to close the existing stair access to the lower Gorge while restoration for the area at the base of the falls is undertaken, as well as lands above the CN corridor. • Initiate an educational program to emphasize the importance of environmental protection. • Erect an interpretive sign at the overlook near the top of the stairs to describe the unique habitat, flora and fauna below in the Gorge. • Provide innovative techniques such as a QR code scanner along the walkways, to inform the public of the importance of the area, and describe works being undertaken. The objective is to increase the awareness and importance of this natural area. • Assess the extent of damage to the habitat in the Gorge and establish goals for restoration. • Determine methods to mitigate environmental damage through design and control of pedestrian movements, prior to replacement of the stairs.
<ul style="list-style-type: none"> • Phase 2: Long Term Implementation 	<ul style="list-style-type: none"> • The long term vision includes stair replacement, installation of warning and educational signage, regular monitoring of visitor use, control of numbers accessing the base of the falls, and installation of a controlled viewing area, out of the floodplain. These works are to be undertaken once an access from the Dundas valley is negotiated. • Design and construct a new 1.5 metre wide stair case, with adequate landings for: pedestrian to rest, educational overlooks, and to assist HES workers carrying stretchers up the stairs. • Implement methods to deter other risks at the base of the falls including signage, delineation posts, roped off areas, and educational signage to explain the significance of the vegetation. • Implement a collaborative public education program with Tourism Hamilton, HCA, and other agencies, that emphasizes respect for the natural and sensitive areas of the Falls and Gorge. • Provide access to the base of the falls as an area of observation. • Prohibit swimming and “walking behind the falls” through the construction of a controlled viewing areas outside of the flood plain at the base of falls that restricts access. • Provide better signage and delineate areas where people are required to keep a trail, with posts and ropes.
<p>Establish off site access to Lower Gorge</p>	<ul style="list-style-type: none"> • Initiate discussions with CN Rail and City of Hamilton re: safe site access • Monitor Gorge trail for future upgrades. • Restore Gorge trail above CN Rail easement
<p>Construct permanent Washroom Facilities</p>	<ul style="list-style-type: none"> • Install permanent washrooms at Webster’s Falls parking lot <ul style="list-style-type: none"> ○ 4 to 6 unisex stalls ○ Obtain necessary permits for permanent septic bed

Recommendations	Implementation Tasks
Restrict access to Spencer Creek	<ul style="list-style-type: none">• Expand Riparian Edge plantings
Restore Habitats	<ul style="list-style-type: none">• Restore habitats negatively affected by human interaction.• Implement erosion control techniques along rim of escarpment.• Restore sections impacted by informal trails.• Remove invasive species where practical• Reduce mowing areas-above Webster's Falls and along Spencer Creek and expand riparian edge plantings in these areas.
Improve accessibility	<ul style="list-style-type: none">• Resurface pedestrian trail (including minor grading) from Tew's parking lot to first overlook.• Resurface Webster's falls parking lot with tar & chip between washroom facilities, accessible walkway and pay station.

SPENCER GORGE - WEBSTER'S FALLS CONSERVATION AREA MASTER PLAN

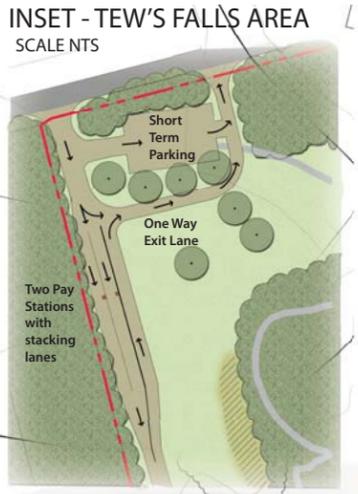
FIGURE 16: RECOMMENDED MASTER PLAN

OCTOBER 2012



VEHICULAR ACCESS
Short Term: Improve stacking, provide pay stations and exit lane
Long Term: Improve driveway design to accommodate shuttle services

TEW'S FALLS PARKING LOT
Short Term: Improve site acces, stacking distances and add an additional pay station; maintain use of overflow area (see inset)
Long Term: Closed to vehicular traffic during weekends holidays during peak season with shuttle service



NEW SIGNAGE
Local lots closed weekends/peak season
Shuttle from Christie Lake

PROVIDE ACCESSIBLE TRAIL TO FIRST OVERLOOK

HAMILTON EMERGENCY SERVICES
Add way finding markers

NEW TRAIL SIGN
Glen Ferguson Side Trail sign in prominate location.

FENCING
Galvanized Metal fencing along trail sections

STONE STAIRS
Access to be removed and embankment restored

VEHICULAR ACCESS
Short Term: Improve stacking and add exit lane
Long Term: Improve driveway design to accommodate shuttle services

REPLACE STAIRS

WEBSTER'S FALLS PARKING LOT
Short Term: Improve accessible parking, convert to one way circulation, provide exit lane and maintain use of overflow area
Long Term: Closed to vehicular traffic during weekends holidays during peak season with shuttle service

WASHROOMS
New permanent facilities with tile bed

MONITOR TRAIL SECTION
Fence or realign sections of trail and restore ridge vegetation

OVERLOOK #3
Clear trees to open up sight lines

DUNDAS PEAK
- Add interpretive Signage
- Improve surface of access trail (15m)

GREENSVILLE OPTIMIST COMMUNITY PARK
Close on weekends during peak season

PLANT NATIVE SHADE TREES

FIREPLACE
To be removed

FENCING
Galvanized Metal fencing along trail sections

SHORT ROAD

PLANT NATIVE SHADE TREES

FALLSVIEW ROAD

ACCESS TO THE GORGE
Short Term (1-5yrs): Stair closure habitat restoration
Long Term (5-10yrs): New stairs, restore trail, and environmental protection.

PLANT NATIVE SHADE TREES

SPENCER CREEK
New riparian edge planting

WEBSTER'S FALLS ROAD

IMPROVE GORGE TRAIL
Determine safe crossing of CN rail line

GENERAL SITE IMPROVEMENTS

- SITE AMENITIES**
- Bicycle Parking
 - New washroom

- SITE RESTORATION**
- Plant native shade trees
 - Restore sections impacted by informal trails

- WAYFINDING SIGNAGE**
- Directional site signage
 - Interpretive signage
 - Warning signage and regulation
 - Signage-international symbols

- TRAILS**
- Improve trail surfaces
 - Improve drainage
 - Provide accessible trails

8.2 Cost Estimates and Development Phasing

This Section includes both short term and long term capital costs associated with the primary recommendations of the Master Plan.

8.2.1 Vehicular Access/Parking

The popularity of the Spencer Gorge-Webster's Falls Conservation Area as a recreation and tourist destination, has resulted in substantial traffic increases and parking demand leading to congestion, impeded emergency access and illegal parking activities.

The transportation study looked at potential benefits of parking demand management strategies that included optimizing existing facilities, remote parking, time limited parking, an overflow parking plan and mitigating spillover (Table 14, Pg. 58). The Transportation Study, provided a comprehensive analysis of the traffic and parking related issues and determined that the volume of vehicular traffic to the site and lack of space on site to meet existing and future anticipated parking demand cannot be met through on-site improvements. The development of a long-term parking management strategy was heavily influenced by the need to accommodate a large volume of vehicles, primarily during weekend and holiday periods between the months of April and October.

After reviewing a variety of parking management strategies it was determined that the development of a remote parking area with provision of a shuttle service would best address the peak parking demand, mitigate identified traffic operations and safety concerns, as well as satisfy the desire to preserve naturalized areas and minimize environmental impacts associated with the use of green-space to accommodate overflow parking demands. The proposed recommendation continues to provide access to this distinct and unique tourist destination while minimizing the traffic and parking impacts experienced during peak weekend conditions, which negatively impact area residents.

The goal of the Transportation recommendations is to provide vehicular access to the site, that minimizes impacts to local residents, reduces congestion on local roads, improves access by HES, while also providing a more positive visitor experience to their day out. It is recommended that the shuttle be put in place for 2013. However, should the shuttle take a few years to implement, immediate implementation of minor, site specific operational improvements at both Webster's Falls and Tew's Falls which will improve traffic and parking operations and enhance site circulation, are identified.

Through the Transportation Study, the capital and operations costs associated with the short and long term parking solutions are as follows:

Table 23: Short Term Parking Capital Costs (over 1 - 3 years) - pending start up of shuttle

Short Term Capital Costs	
• Provide advance, directional signage to Tew's Falls	\$5,000
• Improve 'Lot Full' Signage	\$2,000
• Webster's Falls re-align asphalt entry drive and exit lane (800 m ²)w/grading allowance	\$35,000
• Re-design driveway that provides lengthened vehicle staking	\$25,000

Short Term Capital Costs	
distances at Tew's gravel parking lot (500 m ²)	
• Re-grade and landscape restoration of Tew's parking lot area	\$10,000
• Relocate pay stations manned enclosure at Tew's; add second station both and alternate pay system (credit)	\$15,000
Subtotal	\$92,000.00

Table 24: Long Term Parking Capital Costs

Long Term Capital Costs	
• Install information and Road Signage	\$25,000
• Seating Area-short term rest area –at shuttle hub	\$10,000
• Information Kiosk to the HCA (optional)	\$20,000
• Improvements to parking/drive to Christie Lake Conservation Area to accommodate shuttle (allowance)	\$20,000
Subtotal	\$75,000.00

Long Term Operational Costs:

- Service contract charter bus service
- Shuttle bus operation - 2013-2: \$100,392 per year to be offset by admission fees

8.2.2 Access to the Lower Gorge

Visitors enjoy walking the trails throughout the study area as well as accessing the base of Webster's Falls and enjoying the water fall. A large number of visitors who come to the Conservation Area during the peak season, seek the experience of accessing the lower Gorge.

Visitors are also accessing the lower Gorge from an unofficial trail that was formerly the Bruce Trail Main Trail until it was closed in 2008. There is no trail access into the lower Gorge across the CN tracks. In May 2012, the stairs to the base of Webster's Falls were closed due to their condition and concern for visitor safety as well as concern for environmental degradation in the Gorge. Hamilton Emergency Services continue to have access to the Gorge via a locked gate.

Through public input as part of this Master Plan process, providing access to the lower Gorge, both to access the base of the falls and to hike out to Dundas, was preferred to closing access. Therefore the challenge in moving forward is mitigation of risk to both visitors and the environment; provide environmental protection of the lower Gorge, and provide safe access through the site and out of the site. Providing a balance between visitor enjoyment of this unique natural environment and environmental protection, is recommended through the implementation of the following works undertaken in stages.

Short Term Improvements - It is recommended that the existing stair access to the lower Gorge remain closed while natural regeneration is allowed to occur. Open previously disturbed areas above the CN corridor to be planted. It is recommended that an educational program be initiated to describe the importance of the habitat in the lower Gorge, while restoration efforts are being undertaken, and vegetation communities are allowed to re-establish. Interpretive signage should be

erected at the overlook near the top of the stairs to describe the unique habitat, flora and fauna. Innovative techniques such as a QR code scanner placed along the walkways should also be installed to inform the public of the importance of the area, and describe works being undertaken. The objective is to increase the awareness of the importance of this natural area.

Discussions between HCA, CN Rail, the Iroquois Bruce Trail Club and the City of Hamilton should be re-initiated to determine an appropriate access from Dundas into the Gorge where the main objective is to reinstate the Bruce Trail Main Trail. Monitoring of the lower Gorge trail should be undertaken to determine the condition of the trail and identify required improvements. Further methods to mitigate environmental damage through design and control of pedestrian movements, should be investigated prior to replacement of the stairs.

- **Long Term** - The long term vision includes stair replacement, installation of warning and educational signage, regular monitoring of visitor use and control of numbers accessing the base of the falls. In addition, installation of a controlled viewing area is recommended out of the floodplain.

Table 25: Short Term Lower Gorge Improvements Capital Costs (1-5 years)

Short Term-Stage 1 Capital Costs (1 - 5 years)	
• Restore planting and management along Spencer Creek and north of CN lands	\$20,000
• Steel safety Fencing and secure EMS access only gate-(20lin.m)-	\$20,000
• Signage: Interpretive and warning	\$15,000
Subtotal	\$55,000.00

Table 26: Long Term Lower Gorge Improvement Capital Costs (5-10 years)

Long Term Lower Gorge Improvement Capital Costs	
• metal stairs w/ landings	\$325,000
• Unknowns/Testing and Inspection Contingency-25%	\$81,250
• lower overlook	\$20,000
• Interpretive, regulation and warning signage-	\$15,000
• Lower Gorge Trail improvements	\$30,000
• Markers to delineate pedestrian walking paths	\$12,000
Subtotal	\$483,250.00

8.2.3 Overall Capital Improvements Costs

The following provides an overall estimate of the capital costs associated with the remaining recommendations of the Master Plan:

Table 27: Overall Capital Improvement Costs

Overall Capital Improvement Costs	
• Provide new asphalt surface for accessible parking (250 m ²)	\$6,000
• Provide asphalt surface for accessible path from Tew's parking lot to first overlook (250 m ²)	\$6,000
• Provision of bike parking facilities at Tew's, Webster's and Greenville Optimist Community Park parking lot	\$6,000
• Add one pedestrian pay stations	\$10,000
• Trails <ul style="list-style-type: none"> ○ Upgrade 3m wide x 100m trail between Webster's Falls parking lot and Cobblestone Bridge-asphalt surface w/drainage channel ○ Sections of Bruce Trail Side Trail to Dundas Peak-Allowance pending additional monitoring 	\$30,000
• Signage-wayfinding, warning, HES markers, directional	\$20,000
• Washroom and 1,100 m ² tile bed including design, permits	\$200,000
• Garbage receptacles - (encourage pack in-pack out policy)	\$2,000
• Fencing <ul style="list-style-type: none"> ○ 1.5 metre (5 foot) painted wrought Iron railing south side of Spencer Creek to tie into existing outlook (30lin.m.@ \$150/ lin.m) ○ 1.5 metre (5 foot) painted wrought Iron railing w/vertical pickets at picnic area above Little Webster's Falls (50 lin.m. to replace chain line) ○ Extend 1.5 metre (5 foot) galvanized rail w/vertical pickets rail (ie; 'Castle Model') along walkway leading down to Cobblestone Bridge to block access down the embankment (30 lin.m.@ \$100/lin.m.) ○ Galvanized rail w/vertical pickets, along Escarpment rim section to block access - allowance 	\$4,500
	\$ 7,500
	\$3,000
	\$25,000
• Restoration planting within closed trails; creek riparian zones, reduced mown areas, and escarpment rim	\$20,000
• Overlook: galvanized rail w/vertical pickets and wood or synthetic decking- (similar size to Tew's) including structural design, permits, site restoration and extension of iron railing	\$100,000
• Stair replacement between Webster's and Tew's Falls –metal stairs w/galvanized rail and vertical pickets	\$65,000
• Pavilion Floor repair; Cobblestone Bridge stone paving repair; remove concrete access to Spencer creek	\$30,000
• New Staff Gatehouse (3m x 3m) at Webster's Falls Entrance	\$15,000
• Stairway reconstruction between Tew's Falls and Webster's Parking Lot including demolition, steel and timber stair design and installation	\$90,000
Subtotal	\$640,000

The total for all Capital Costs as outlined in Tables 23 to 27 is \$1,345,250.

The short term implementation costs included in this value, which are optional pending the shuttle service start-up are \$92,000.

The cost of the operation of the shuttle at \$100,392 per year has not been included in capital costs.

8.3 Funding

The development of the site features including fencing, stair replacements, interpretive signage, trail improvements, installation of safety fencing, and restoration plantings, will depend on available funding, grants, and donations.

With respect to donations, the Conservation Authority currently has a recognition program in place as does the HCA Foundation. Based on the size of the donation donors may be recognized with signage onsite, in media releases, on the HCA Conservation Foundation websites and Facebook page. Donors may also be recognized in person at a media event and ceremony (eg. a ceremony to officially re-open the stairs). HCA Conservation Foundation recognition policies require a minimum of 60% of project costs as donation for a naming opportunity. The Conservation Foundation and Hamilton Conservation Authority will also issue a charitable receipt for cash donations, most in-kind donations, as well as gifts of securities.

SECTION NINE: MANAGEMENT

An ecosystem is the interrelationship of all living and non-living elements in a natural system. The three basic elements in the ecosystem approach to planning are environmental, social and economic. The goals for management of the Spencer Creek-Webster's Falls Conservation Area are to manage the ecosystem through the identification of appropriate park management zones, endorsement from the public on the strategic directions to ensure user needs are met, and finally in the preparation of a staging plan with recommendation on implementation of improvements as funds become available.

9.1 Relationship to Watershed Management Program

The Spencer Creek Watershed is composed of several natural components functioning together as a system. Each component is related to, and influences the other in some way. The Spencer Creek Watershed Management Plan was prepared in 1997. The attributes of the watershed are divided into three categories: water, nature and community.

The primary stresses of the watershed were identified within the Mid Spencer Creek and Logies' Creek sub-Watershed as well as opportunities for management. Stresses included encroachment into riparian zoned areas, and recreational activity. The opportunities identified included an increase in riparian vegetation, the promotion of stewardship, a recreation management plan, the promotion of trail user education and detailed water monitoring.

There are many challenges and opportunities in the management of the watershed including:

- Terrestrial habitat, including rare and significant habitat in the watershed, is being threatened by human activity.
- Competition with non-native species is threatening some indigenous vegetation and wildlife.
- Some well defined corridors along valley systems and the Niagara Escarpment link significant open spaces.
- Increased public demand for recreation opportunities is placing additional stress on natural areas.
- The Spencer Creek Watershed has a good natural heritage database already completed.
- The Regional Official Plan and new Urban Hamilton Official Plan (pending OMB approval) contain strong policy recommendations based on ecosystem planning.
- Some Environmentally Significant Areas are protected by public ownership.

9.2 Environmental Management Techniques

9.2.1 Protection and Management Techniques for Sensitive Areas and Species

There are a range of management techniques for the protection of sensitive areas and species. Diverting foot traffic from sensitive rim communities along the Escarpment is the challenge in the study area, where visitors are attracted to the cliff edges for the best views and often step away from the

designated trail. However, the Bruce Trail side trail is also strategically aligned along the cliff rim to capture the best views. Techniques within the study area to alleviate visitor impacts include trail closures to allow regeneration. The master plan recommends the closure of the access to the Gorge to allow natural regeneration and to determine the capacity of use that will be sustainable for the future. The master plan also recommends trail diversions away from the rim along the trail to Dundas Peak, where safety and degradation are issues, and providing additional links to the Glen Ferguson side trail.

Where visitors frequently cut down embankments for views of the falls (eg. which occurs above Webster's falls) a formal overlook is recommended, as well as restoration planting and placement of barriers such as extensive galvanized or iron rail fencing. In the area between the cobblestone bridge and rim of the falls, the Master Plan recommends allowing the area to naturalize (no mowing), and extending rail fencing along the top of the rim further than existing. This is such a popular cut through location, that it will be difficult to stop this entirely. In other locations, continued monitoring, and installation of galvanized metal rail fencing and barriers such as rocks and logs to impede access as well as installation of interpretive and warning signage is recommended.

These recommendations are consistent with the 1991 study on Vascular Plant Flora of the Spencer Gorge Area of Natural and Scientific Interest, which recommended that:

- The area should be protected from development or other impacts;
- Existing linkages with other natural areas should be maintained and enhanced;
- Buffer strips should be maintained or created around the periphery of this site and along the upstream riparian corridors to protect the integrity of the natural vegetation patterns and to protect water quality in the stream systems flowing through this natural area; and
- Future field work should include monitoring of groundwater and surface water conditions and the monitoring of significant species.

9.2.2 Priority Protection Areas

Priority Protection Areas include the Spencer Gorge, the Spencer Creek subwatershed, dry oak woodlands and prairie remnants. The Ecological Survey of the Niagara Escarpment Biosphere Reserve Volume 1. Significant Areas (Varga et. Al., 1996) includes a site summary for the Spencer Gorge and recommends that trails and foot traffic be diverted from the sensitive rim communities near Webster's Falls. The Dry Oak Woodlands along the top of the Gorge and the prairie remnants along the Gorge rim are two rare and significant communities that are being degraded due to trail widening, invasive species, and overall high use of the area. Monitoring programs have already been established by the Conservation Authority for the tallgrass oak woodland and prairie remnants, including restoration efforts (e.g., removal of undesirable woody species to help facilitate growth of desired species). These programs have been advanced over the last 15 years through various restoration projects.

Unfortunately the majority of the seven national and provincial species at risk listed in the 1996 Ecological Survey were not geo-referenced; therefore it is difficult for the HCA to locate these species for future monitoring. However, the HCA will be implementing a Species at Risk monitoring program at which time, the seven species at risk listed will be relocated, geo-referenced and monitored regularly.

The Tufa Mound is a feature considered to be rare in Ontario and was recently identified in the along the unofficial lower Gorge trail. This feature is vulnerable to human impact and needs to be protected against negative impacts including off trail users, soil compaction, and erosion. Any future considerations to re-instate the lower Gorge trail must ensure that protection measures such as a raised and fenced section of walkway are implemented.

9.2.3 Invasive Species

The Conservation Authority has already established a monitoring program for sensitive areas, including restoration efforts (removal of undesirable woody species to help facilitate growth desired species). There are various management techniques that can be employed to reduce the negative impact of undesirable woody and herbaceous species. These management techniques include educating adjacent landowners on undesirable and invasive species to avoid when planting their gardens.

Specific areas abutting the boundaries of the Conservation Area are subject to the invasive species that have been introduced by adjacent land owners. The use of door to door direct mailing of educational brochures for adjacent homeowners to discourage encroachment into natural areas by dumping of landscape maintenance refuse and information on invasive and undesirable species to plant, as well as posting of regulation signage to deter dumping of yard waste into natural areas is recommended in these areas.

9.2.4 Trails and Overlooks

Trails and overlooks must be properly designed using appropriate materials and constructed to avoid puddling, drainage and erosion of trails. The management techniques recommended in the Master Plan include trail edge delineation such as fencing and boardwalks in sensitive or regenerating areas, to encourage correct trail use. In addition, trail diversions away from sensitive or steep sections as well as the installation of 1.5 metre high (5 foot) galvanized fencing is recommended as further protection along steep sections of trail.

The Bruce Trail is a footpath generally of an "unimproved" type. Improvements should be made only under the following circumstances:

- to permit safe unobstructed passage for pedestrians in all seasons;
- to protect property, whether public or private; and/or
- to prevent erosion and otherwise minimize or eliminate adverse environmental impacts.

9.2.5 Wayfinding/Interpretive Signage:

The use of signage to educate park and trail users about sensitive areas and desired conduct, as well as information about points of interest is strongly recommended in this Master Plan.

9.2.6 Risk Management :

Universal symbol signage, educational signage, sturdy fencing, and trail re-alignment as well as controls to pedestrian access within sensitive natural areas including raised boardwalks are recommended.

Water access in the area is a popular attraction; however, this perception must change. Playing in the Creek above or below the falls is *not* acceptable or safe. The overuse of this area has led to the deterioration of the natural area that many are unaware of.

SECTION TEN: PUBLIC CONSULTATION

Consultation plays a key role in not only generating ideas from the outset but also generating community support for the project. Given this importance, the Consultant Team included extensive consultation to actively engage the broad spectrum of stakeholders that have an interest in the Master Plan. Public consultation and input was achieved through 3 public information centres/workshops, two on-site surveys, comments sheets and emails.



10.1 Public Information Centre #1 (March 21, 2012)

The first Public Information Centre (PIC) was well attended by approximately 54 people including individuals from outside the immediate Greenville Community. The meeting included a short presentation followed by a workshop session. The purpose of this PIC was to introduce the project, provide background information and to identify key issues.

The key issues identified were broken into 5 categories:

- Parking/Vehicular Access and Signage
- Hamilton Emergency Services (HES) Access
- Trails/Walkways/Stairs and Overlooks
- Open Space, Picnic Area and Infrastructure
- Natural Areas Protection

Appendix D includes a summary of the PIC including the format, method of advertisement and copies of the comment sheets received.

10.2 Public Information Centre #2 (April 6, 2012) and Survey #1

The second PIC was more informal in that a tent, including the information panels provided at the first PIC, was set up adjacent to the Webster's Falls parking lot for visitors to review and comment on. In addition, comments sheets were made available for the public to either fill out on site, or take home and return to the Consultant team later. The April 6th date was chosen as it represented one of the peak users days of the Conservation Area (i.e., Easter weekend).

The purpose of this consultation was to inform the park users of the Master Planning process that was underway and to obtain input from park users to determine the purpose of their visit and the duration of their stay. 54 visitors were interviewed casually and asked where they were coming from and how long they planned on staying in the area.

Appendix E includes a summary of the information obtained from this PIC.

10.3 Public Survey #2 (Sunday May 20, 2012)

An on-site survey was undertaken on May 20, 2012⁶ to identify where visitors were coming from, how long they intended on staying in the Conservation Area that day, and what activities they would be doing (picnicing, hiking/walking). Visitors were also asked if they had any difficulty in finding the Conservation Area, or issues while at the Conservation Area.

The Traffic Consultants identified that during the peak period from 2:45p.m. to 4:30 p.m. there were 705 cars parking in the Conservation Area, and off site. Generally there were three people for each car during this peak period, as well as visitors who walked into the Conservation Area from the Gorge/Dundas and Webster's Falls Road. During the peak period on May 20, 2012 it is estimated that there were approximately 2,500 visitors at Spencer Gorge-Webster's Falls Conservation Area.

The traffic /parking survey presents an analysis of the impacts and issues related to the vehicular traffic and reflects the issues that have been experience during the peak periods over the last few years as the area is becoming a bigger regional attraction. The following is an analysis of the visitor experience and issues seen May 20, 2012 and also reflecting the issues that have been identified by the local residents

Visitors who came to the Conservation Area before 10:00 a.m. were generally hiking or walking. Members of family groups starting arriving at the Webster's Parking lot around 10:00 a.m. and their first point of orientation was at the top of the walkway leading down to Webster's Park. Because the accessible trail is asphalt, many visitors started to walk toward the accessible overlook before they were redirected. Most visitors to the Conservation Area were looking for Webster's Falls picnic area as their primary destination, and asking where the picnic tables were to be found. These visitors were part of family groups who were meeting at the Webster's Falls parking lot. As the Webster's parking lot and overflow parking area filled up, people were directed by police officers and HCA staff, to the Tew's parking lot. As a result, some family members had difficulty locating their extended families as some were relocated to the Tew's parking lot, while others who were turned away from the Tew's parking lot, parked on side streets and walked in.

Some families were drove down Short/Fallsview Road and dropped off their family members and picnic supplies at the pedestrian entrance, and then drove on to find a place to park. Many pedestrians ended up walking into the park along Short/Fallsview Road, because they were required to park off site.

Those visitors interviewed were asked if they had difficulty finding the Conservation Area. Many said that they did, and that they could not locate the site through a GPS coordinate. Others suggested better signage from Highway No. 8 and Brock Road would be beneficial.

By mid afternoon the parking lots were full and remained full with very little turn over. Visitors still continued to arrive, parking off site and walking in. However, this was less convenient for families comprised of seniors and young children. Overall, many visitors came to set up a family picnic

⁶ May 20, 2012 of the Victoria Day long weekend.

including games, and planned on staying for the day and into the early evening. People were seeking shade opportunities in the main, lower open lawn area and by the Spencer Creek. In the lower Webster's Park area near the creek, visitors sought out shade and picnicked under shade trees. Family groups ranged from two up to approximately 50. Although there were a number of large groups, Webster's Falls Park area did not exceed its capacity for picnicking, based on the amount of open space and ease of movement around this area. The walkways, bridge crossing and overlook were not overly congested.

10.4 Public Information Centre #3 (Tuesday June 26, 2012)

The third public information centre was held at Christ Church, Flamborough. 46 people attended this open house which began at 6:30 p.m. with a display of the Draft Master Plan and Concept Options panels. A presentation of the draft Master plan was held from 7:00 until 7:30 and was followed by open discussion for one hour. At the end of the question and answer period, the public was asked to consider the two concept options, and place a red dot beside the features proposed that they did not like. The meeting concluded at 9:00 p.m.

In summary there was support for the shuttle proposal, as a means to deal with the volume of traffic in the area, but also concern for visitors parking on local streets. The consultant team explained that parking restrictions are proposed for all residential lands east of Brock Road, and west of Ofield. The intent is to implement a comprehensive traffic control plan all at the same time. Extra enforcement will be required during the initial stages of implementation.

The public expressed concerns about the number of people the park can handle. The consultant team responded that there are many pedestrian access points and that it is extremely difficult to assess the number of visitors using the park. Capacity of a natural park setting is difficult to calculate. The shuttle will also provide an opportunity to monitoring the numbers of visitors to the Conservation Area. Documentation of impacts by visitors and recommendations for mitigation have been included in the Master Plan.

At the PIC, the consultant team explained that these are public lands. It is not the intention of the Niagara Escarpment Plan to restrict access based on where people originate from.

There was concern that the stairs were closed, and local residents suggested the stairs be open during weekdays, when the issue of overcrowding is reduced. However, the consultant team explained that the stairs were closed because of safety concerns and environmental concerns.

There was also a question to the consultant team if an inventory had been done of the places that the Spencer Gorge-Webster's Falls Conservation Area is being promoted. The popularity of the area, has been a result of the success of these promotions. Tourism Hamilton, and City of Waterfalls are two organizations who promote the area. Part of the implementation of the Master Plan will be to work with the major people/organizations to properly and consistently promote the area as a natural wilderness area to be respected.

The public was given six red dots (3 per concept) to place on an illustrated feature that they did not like. A tabulation of the number of dots placed on the illustrated feature is noted below. In summary, participants did not like parking on the local residential roads, by park visitors. They did not like the current stair closure to the Gorge, although some did not like the proposal to replace the stairs. Re-opening the existing stairs was not a long term recommendation by the consultant team due to the condition of the stairs. A follow up questionnaire has been posted on the HCA website asking this question once again.

Option B: Residents comment of what they do not like	
Off site Parking – <i>continue to allow parking on local residential roads</i>	50
Add Directional Signage	1
Vehicular Access- Webster's – <i>add exit lane</i>	1
Webster's Falls Parking Lot – <i>improve accessible parking – add exit lane</i>	2
Webster's Falls Parking Lot – <i>allow overflow parking on peak season/weekends</i>	10
Open Lawn-Tew's – <i>allow overflow parking on peak season/weekends</i>	11
Allow fireplace and BBQ	9
Gorge-Close Stairs	31
Option C: - Residents comment of what they do not like	
Christie Lake Conservation Area Shuttle	7
Add Directional Signage (road)	2
Shuttle Drop-Off at Webster's parking lot	1
Shuttle Drop-Off at Tew's parking lot	1
Webster's Falls Parking Lot - <i>close on Weekends</i>	4
Greenville Optimist Community Park – <i>close parking lot on weekends</i>	4
Improve/add Directional Signage (park)	1
Remove Fireplace and ban BBQ use	3
Webster's Park- <i>close walkway sections</i>	1
Extensive riparian plantings	1
Railings above Webster's falls	1
Gorge- <i>replace stairs and provide boardwalk</i>	10
Improve Gorge Trail	2
Total	153

10.5 Public Information Summary

Local residents generally would like to see the character of the Conservation Area remain the same as it has historically been, with picnicking, hiking and site-seeing as the park uses. Local residents would like to see the numbers who use the Conservation Area capped at an appropriate level to what the area can sustain, with concerns for the degradation of the environment, safety concerns for visitors who access the cliff edges, and concerns about traffic congestion on local roads. There was also concern regarding Hamilton Emergency Services access through the area. Local and out of town visitors come to experience the waterfalls, especially Webster's Falls, enjoy family gatherings, and the natural setting. The public input was documented and is included in Appendix E.

SECTION ELEVEN: RECOMMENDED MASTER PLAN POLICIES:

11.1 Species at Risk Monitoring Strategies

Seven species at risk were documented as occurring within the Spencer Gorge-Webster's Falls Conservation Area. These species have been identified as "at risk" in Canada and/or Ontario by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and/or the Committee on the Status of Species at Risk in Ontario (COSSARO). The Conservation Area also contains several species and vegetation communities that are considered provincially rare. It is recommended that appropriate management and monitoring of these species/vegetation communities continue, and that development of specific visitor impact management plans be undertaken as a high priority.

Provincially rare species should be examined in more detail during the on-going management of the Conservation Area to establish appropriate management protocols.

11.2 Restoration

The habitat restoration recommended should be directed towards improving habitat in key areas for targeted species, improving prairie oak woodlands, escarpment rim buffers, and eroded slopes.

11.3 Trail Development, Uses and Management

No new trails are proposed in the Master Plan. The Webster's Falls side trail between Tew's Falls (where the trail juncture with the Glen Ferguson Side Trail) and Dundas Peak should be further monitored, to provide recommendations for re-routing sections of this trail for safety and environmental restoration.

The stairs to the lower Gorge are to remain closed to allow for regeneration of the lower Gorge and to allow further monitoring and development of a visitor impact management plan.

Recreational uses should not exceed the carrying capacity of an area. It is recommended that further monitoring be undertaken to determine the number of visitors hiking the trails.

11.4 Trail Cuts and Trailhead Closures

Where unauthorized access to the escarpment cliff and embankments have occurred, HCA has undertaken measures to fence off these access points; however ongoing monitoring, and more sections of fencing is required. The installation of galvanized fencing, as well as the placement of vegetation, rocks, logs, and other deterrents is recommended.

Unauthorized access from the lower Gorge along the creek is occurring. The adjacent landscape in the immediate area needs to be rehabilitated to discourage entry. For the lower Gorge, near the CN

lands, the trail closures will allow restoration of interior portions of the trail to progress naturally. Trailhead closures, fencing and vegetation planting will be executed by HCA operations staff.

11.5 Park Operations

Conservation Area activities are subject to the *Conservation Authorities Act* (RRO 1990, Regulation 116) and Ontario Regulation 365/88. In addition, the following general policies are recommended for adoption for the Spencer Gorge-Webster's Falls Conservation Area:

- a) Trail use and any other recreational or educational activity shall be permitted provided the capacity of the proposed facility is not exceeded, no significant environmental degradation of the natural resource base occurs, and a visitor management program is prepared and implemented to monitor impacts and provide management with a means to curtail recreational overuse and provide corrective measures.
- b) Event activities shall generally be restricted to the Development Zone with the exception of specialized activities that may require utilization of the trail system such as group hikes. Permitted events will only include those that are deemed compatible with the general nature and capacity of the Conservation Area without negatively affecting Conservation Area resources or users. Permits or bookings shall be negotiated and approved by HCA staff under the supervision of the Conservation Area manager.
- c) The staging or hosting of special, historic or tourism events shall typically be organized and operated by Hamilton Conservation Authority staff as an integral component of natural and cultural education services. Additional special events will also be permitted by private groups or individuals at various locations subject to negotiation and issuance of a special-use permit by the CA. Additional special events permits shall be negotiated on a case-by-case basis.

11.6 Accessibility

As a public agency, the Hamilton Conservation Authority has an obligation to make its resources and services available to all members of the public. Accordingly, the Hamilton Conservation Authority shall, to the greatest extent possible, remove financial barriers to the enjoyment of the Spencer Gorge-Webster's Fall Conservation Areas. In addition, the HCA will ensure that its infrastructure is consistent with *Accessibility for Ontarians with Disabilities Act* 2005 (AODA) standards where feasible and possible.

11.7 Sustainability

Hamilton Conservation Authority will provide, to the greatest extent possible, facilities and services that protect and enhance the natural heritage system. This includes locating trails in non-sensitive areas and may include restricting access and/or closing trails that have caused degradation to the natural environment. In addition, the CA will include utilize best practices for managing on-site rainwater, the

use of native vegetation in landscaping, high energy and water efficiency in building design, the use of alternative "green" sources of energy and reuse or recycling of existing materials.

11.8 Park Classification

The Existing Park Classifications under the Niagara Escarpment Open Space System (NEPOSS), within the study area includes: Natural Environment (Spencer Gorge Wilderness Area); Escarpment Access (Webster's Falls Park), and Historical (Greenville Optimist Community Park). The Spencer Gorge-Webster's Falls Conservation Area Master Plan proposes that the entire study area be classified Natural Environment.

11.9 Park Management Zones

The Spencer Gorge-Webster's Fall Conservation Area Master Plan employs the zoning system of the NEPOSS. There are five recommended zones in the Spencer Gorge-Webster's Falls Conservation Area system: Nature Reserve Zone, Natural Zone, Access Zone, Historical Zone, and Development Zone. Park zones are intended to fulfill the following functions:

- Identify and provide recognition of the natural and cultural features and attributes of the Conservation Area;
- Delineate areas on the basis of differing requirement for management; and
- ensure park users get the most out the Conservation Area, within environmental protection constraints.

The boundaries of the zones have been determined through a process of inventory and analysis. Under the Niagara Escarpment Plan, zoning is stipulated as essential to the orderly planning, development and effective management of the Conservation Area. Figure 17 illustrates the recommended park management zones assigned to different portions of the Master Plan area. Table 28 includes the purpose of the various zones, articulates their purpose and the uses permitted.

Figure 17: Park Management Zones

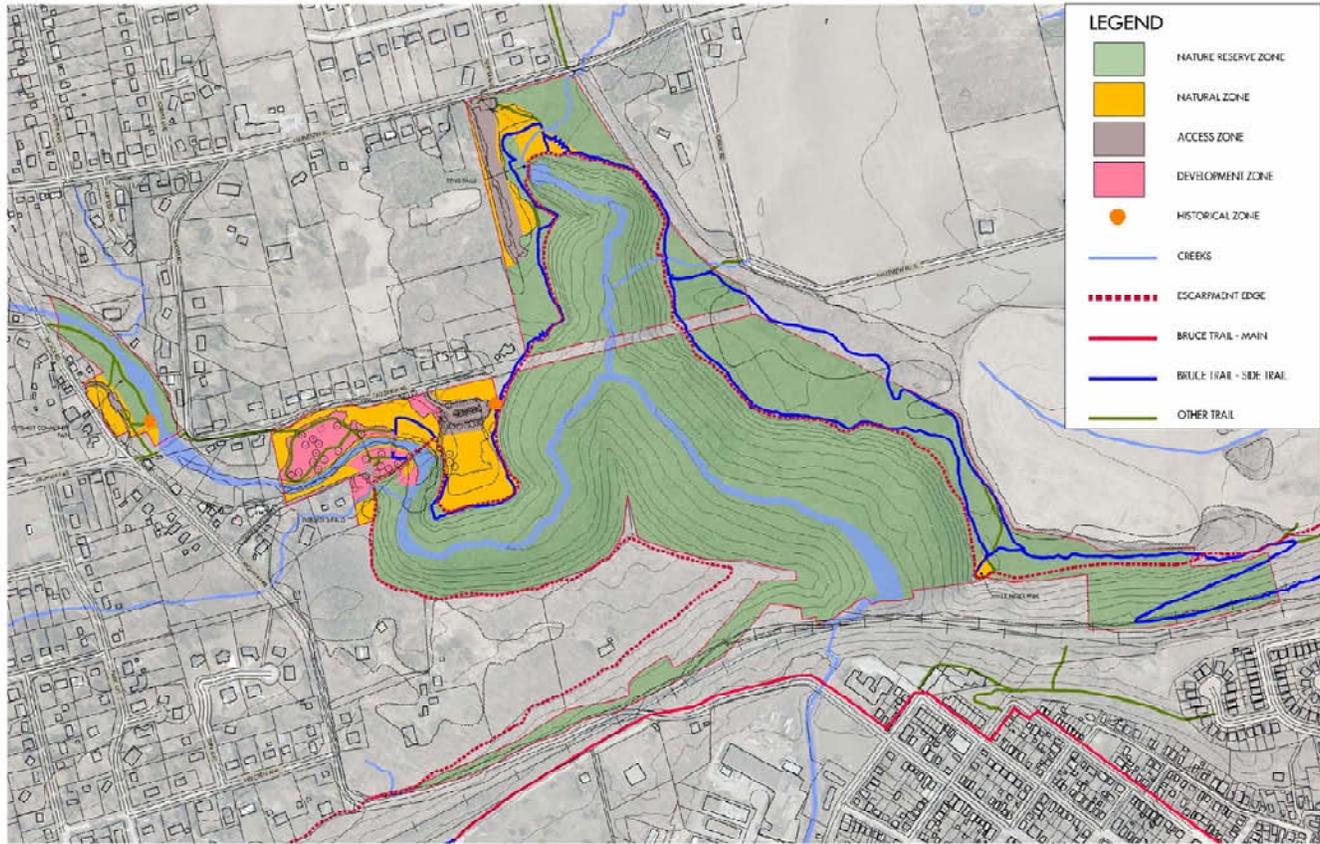


Table 28: Park Management Zones

Zone	Purpose ⁷	Area included in ha	Permitted Uses
Nature Reserve	<ul style="list-style-type: none"> To provide for the long term protection of the escarpment face and Gorge including provincially significant features and to ensure appropriate adjacent uses. 	<ul style="list-style-type: none"> With the exception of the Webster's falls stairs and the lands immediately below the falls, all of the lands below the escarpment edge including the Gorge area are included in this zone. Includes the Spencer Gorge Escarpment Valley ANSI. All lands above the escarpment not identified as natural, access or historical. 57.27 hectares (86%) of the Master Plan Area. 	<ul style="list-style-type: none"> Passive and low intensity recreation including hiking trails Forest and wildlife management practices that contribute to the sustainability and or enhanced of the natural system. Trails and signage.
Natural	<ul style="list-style-type: none"> To provide for the predominant protection and maintenance of Tew's and Webster's Falls and their provincially significant features, while providing for low intensity recreational activities and support facilities. This zone will also serve as a buffer between the Development and the Nature Reserve Zone. 	<ul style="list-style-type: none"> Tew's Falls lookout and interpretive areas. Open area south of Webster's Falls parking lot and area abutting Development Zone. 5.6 hectares of the Master Plan Area 	<ul style="list-style-type: none"> Hiking, walking and education. Development is generally restricted to trails, stairs, necessary signs/fencing and minimal interpretive facilities to support the permitted uses.
Historical	<ul style="list-style-type: none"> To provide long-term protection and management of historical park resources. 	<ul style="list-style-type: none"> This zone includes an historical cemetery located immediately east of the Webster's Falls parking lot. 0.08 hectares of the Master Plan Area 	<ul style="list-style-type: none"> cemetery Interpretive and educational facilities Trails and signage Fencing
Access	<ul style="list-style-type: none"> To provide the main access to parking lots, trail heads, open space, facilities and services. 	<ul style="list-style-type: none"> The access driveways and parking lots associated with Webster's Falls and Tew's Falls. 1.66 hectares of the Master Plan Area 	<ul style="list-style-type: none"> Access roads, signs, trailheads and parking lots
Development	<ul style="list-style-type: none"> To support the principal recreational activities for day-use including hiking, picnicking, and limited special events. 	<ul style="list-style-type: none"> This zone has been assigned to current day use areas including the manicured area of Webster's Falls Park, the stairs to the Gorge and a limited area at the base of Webster's Falls. 1.74 hectares of the Master Plan Area 	<ul style="list-style-type: none"> Hiking, picnicking, picnic shelters, washrooms Stairs to the base of Webster's Falls Trails and signage Look out areas Fencing Maintenance building/structures

⁷ NEP, Section 3.1.5, 2005

11.10 Park Zone Management Policies:

11.10.1 Nature Reserve Zone Management Policy

The *Nature Reserve Zone* shall preserve and protect provincially significant features of the Niagara Escarpment including provincially and locally significant land forms and ecological function, with emphasis on the long-term protection and management. Permitted activities include passive and low intensity recreation; environmentally appropriate scientific research and forest and wildlife management techniques that contribute to the sustainability and or enhancement of the natural system. Development will generally be restricted to trails and signage only.

11.10.2 Natural Zone Management Policy

The *Natural Zone* shall generally provide for the protection and enhancement of provincially significant features that establish the landscape, while providing for low intensity recreational activities and support facilities. Development will generally be restricted to the minimum necessary to support the low intensity recreational activities. This zone will also serve as a buffer between the Development Zone and the Nature Reserve Zone to protect the integrity of the natural vegetation and water quality in the stream systems.

11.10.3 Historic Zone Management Policy

New development shall be restricted in the *Historical Zone* with only the cemetery, trails, fencing and interpretive signage permitted.

11.10.4 Access Zone Management Policy

The *Access Zone* shall provide basic infrastructure support facilities for the associated recreational activities such as entrance roads, parking, and kiosks. All development shall be kept to a minimum and shall not conflict with the general landscape character.

11.10.5 Development Zone Management Policy

The *Development Zone* shall permit passive recreational facility needs including picnic areas, barbeques, washroom facilities, and maintenance facilities. All facilities and infrastructure shall be designed, sited, constructed and maintained in an environmentally appropriate and sustainable manner in keeping with natural landscape character of the Escarpment Park setting.

SECTION TWELVE: CONCLUSIONS

Based on the inventory and analysis, traffic counts, public consultation, and background research, concept options were prepared. The recommended Master Plan includes features from both Option B and Option C, and reflected public input. The transportation management plan and development of alternate modes of transportation, has been recommended to alleviate the congestion in the local residential neighbourhood identified as one of the main issues for the Area. Christie Lake Conservation Area, will be the staging area, for both pedestrian and vehicular access to the Spencer Gorge-Webster's Falls Conservation Area. Pedestrian have the opportunity to hike the 6 kilometre trail from Christie Lake Conservation Area to the Spencer Gorge-Webster's Falls Conservation Area Bruce Trail side trails, via the Crooks Hollow Heritage Trail. The Spencer Gorge is a unique natural heritage area to be protected, monitored and restored where visitor impacts have caused degradation. The importance of this unique habitat is well documented. The effectiveness of the Master Plan recommendations to ultimately see a safe access to the Gorge, will rely on a shift in public perceptions with the help of partnerships and education. Further monitoring is recommended to outline mitigation measures to reduce visitor impacts. Just as the marketing of this area has been so effective in drawing large crowds over the past 5 -10 years, these marketing partners can help to provide to the public information on the changes that are occurring in the Master Plan Area.

The public would like to see the character of the Master Plan Area retained, while providing a destination for families to picnic and enjoy the natural and cultural heritage, and hike the trails in a safe and respectful setting. There is an opportunity for a 'Friends' group to assist in orienting visitors from out of town, to the heritage and natural areas close by, as well as identifying opportunities to expand on the visitor experience in the local community.

The development of a resource management plan is recommended for the Spencer Gorge-Webster's Falls Conservation Area to identify key actions that require specific attention during the management of the Master Plan Area, and guide the protection of the natural heritage system over the long-term. This is critical for the long term recommendation to re-instate access to the lower Gorge, and management of visitor impacts.